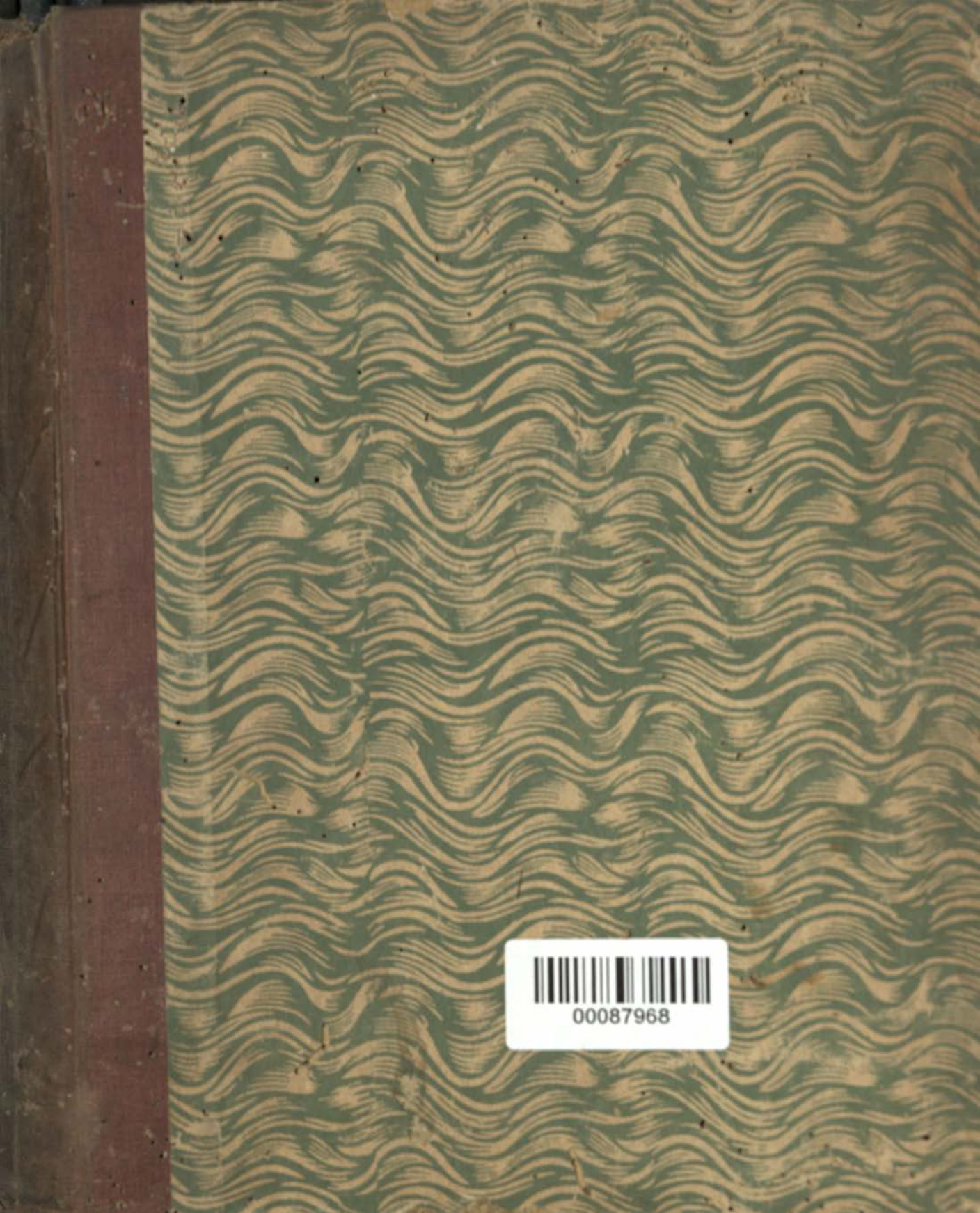
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ILLUSTRATIONS

OF THE

SHELLS OF MOLLUSCOUS ANIMALS.

VOL. XIX.

CONTAINING MONOGRAPHS OF THE GENERA

HELICINA.	CEMORIA.	STOMATIA.	MEGASPIRA.
PANOPÆA.	RIMULA.	GENA.	CHILINA.
SCALARIA.	CARDILIA.	SOLEN.	PHYSA.
CUMINGIA.	CRANOPSIS AND	ADEORBIS.	SOLECURTUS.
GLYCIMERIS.	ZEIDORA.	TEINOSTOMA.	PETRICOLA.
CYPRINA.	TYPHIS.	BRODERIPIA.	ASTARTE.
ANATINELLA.	PLEUROTOMARIA.	CULTELLUS.	VENERUPIS.
PLICATULA.	GALEOMMA.	CYCLOSTREMA.	PANDORA.
EMARGINULA.	SCINTILLA.	PHARUS.	TRICHOTROPIS.
GNATHODON.	STOMATELLA.		

BY

LOVELL AUGUSTUS REEVE, F.L.S., F.G.S.,

CORRESPONDING MEMBER OF THE NATURAL HISTORY SOCIETY OF WURTEMBURG, OF THE LYCEUM OF NATURAL HISTORY OF NEW YORK, OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, AND OF THE ZOOLOGICO-BOTANICAL SOCIETY OF VIENNA.

CONTINUED BY

G. B. SOWERBY, F.L.S.

"All true, all faultless, all in tune,
Creation's wondrous choir
Open'd in mystic unison
To last till time expire."

Keble.

LONDON:

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1874.

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COVENT GARDEN.

MONOGRAPH

OF THE GENUS

HELICINA.

"'Tis beauty truly blent, whose red and white
Nature's own sweet and cunning hand laid on."—*Shakspeare.*

1

2a

2b

3a

4

5

3b

6

7

a b

8

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE I.

Genus HELICINA *Lamarck.*

Testa terrestre, heliciformis, conica, lenticularis, aut globosa; aperturæ margine interno rectiusculo, margine externo plerumque reflexo vel incrassato.

Operculum concentricum, testaceum vel corneum, obliquè semilunari vel subquadratum, nucleo subcentrali.

Shell terrestrial, heliciform, conical, lenticular or globose; inner edge of aperture rather straight, outer margin generally reflected or thickened.

Operculum concentric, shelly or horny, obliquely semilunar or subquadrate, with nearly central nucleus.

It is difficult to accept as useful the numerous generic divisions into which the species of this genus have been separated. The passages from the conical to the globose, the globose to the lenticular, the notched to the entire columella, the imperceptible to the thick rounded callus, the rounded to the angular, and thence to the keeled body-whorl, are made by almost imperceptible gradations. That being the case, it is impossible to define such genera as *Trochatella*, *Alcadia*, *Lucidella*, &c., so as to distinguish them from each other, and from *Helicina;* while, on the other hand, they unitedly form a genus of varying forms, but fairly included in one genus as defined above.

The *Helicinæ* abound more on islands than on continents, preferring the tropics. Cuba, the West Indian Islands, especially Jamaica, the Philippines, and the Pacific Islands are among their favourite habitats, although the tropical, and even the northern parts of the American continent produce many species. The rapid increase in the number of known species that has taken place in this genus is very remarkable. In 1842 Mr. Sowerby published 73 species, a large proportion of which were then recent discoveries; and in 1866 his 2nd Monograph with 270 species. In the present work we describe 310.

Species 1. (Mus. Brit.)

HELICINA DISSIMULANS. *Hel. testâ depressâ, fusco-rubescenti, concentricè striatâ; spirâ depresso-conicâ, anfractibus parvis, paucis, ultimo anfractu sublenticulari, medio obtusissimè angulato, callo ventrali tumidiusculo, columellâ aculeatâ, obliquâ; labio externo angusto, reflexo, luteo, supernè sensim depresso, infrà ad columellam fissurâ incisâ emarginato.*

THE DISSIMULATING HELICINA. Shell depressed, reddish-brown, concentrically striated; spire depressed-conical, whorls small, few, last whorl rather lenticular, very obtusely angular in the middle; ventral callus rather thin, columella aculeated, oblique; outer lip narrow, reflected, yellow, sinuously depressed above, notched with an incised figure below at the columella.

POEY. Mem. II., p. 35, t. 4, f. 6, 7.

Hab. Cuba.

Species 2. (Fig. *a*, *b*, Mus. Nobis.)

HELICINA SUBMARGINATA. *Hel. testâ globoso-subdepressâ, fuscâ, vel rubrâ ad suturam plerumque luteo marginatâ, spiraliter punctato-striatâ; spirâ subconicâ, anfractibus convexis, majusculis; apice obtuso; ultimo anfractu inflato, medio obscurè angulato; callo ventrali magno, albo, tumido, columellâ obliquâ, aculeatâ; labio externo luteo, crasso, ad columellam infrà emarginato.*

THE SUBMARGINATED HELICINA. Shell globose-subdepressed, brown, or red generally bordered at the suture with yellow, spirally puncture-striated; spire rather conical, with rather large convex whorls; apex obtuse; last whorl inflated, obscurely angular in the middle; ventral callus large, white, tumid; columella oblique, aculeated; outer lip yellow, thick, notched below at the columella.

GRAY. Zool. Journ. i. p. 68, t. 6, f. 11.

Helicina rubra, Pfeiffer.

Hab. Cuba.

Species 3. (Fig. *a*, *b*, Mus. Nobis.)

HELICINA SAGRAIANA. *Hel. testâ magnâ, crassâ, subangulatâ, fuscâ, epidermide viridi interdum indutâ; spirâ depresso-conicâ, apice obtuso, anfractibus convexis, callo ventrali expanso, incrassato, columellâ obtusè aculeatâ; labio externo albo, reflexo, ad columellam infrà emarginato.*

THE SAGRA HELICINA. Shell large, thick, rather angular, brown, covered sometimes with a green epidermis; spire depressed-conical, apex obtuse, whorls convex, ventral callus expanded, thickened, columella obtusely aculeate; outer lip white, reflected, notched below at the columella.

ORBIGNY. Mollusques de l'Isle Cuba.

Helicina Jeannereti? Pfeiffer.

Hab. Cuba.

Species 4. (Mus. ——? Copied.)

HELICINA FESTIVA. *Hel. testâ solidâ, angulatâ, rubro-fuscâ concentricè rugatâ, inter rugis rubro lineatâ, medio luteo fasciatâ; callo ventrali luteo, rubro marginato, columellâ parvâ, aculeatâ; labio externo luteo, incrassato, infrà ad columellam emarginato.*

THE FESTIVE HELICINA. Shell solid, angular, concentrically wrinkled, with red lines between the wrinkles; banded with yellow in the middle; ventral callus yellow, bordered with red; columella small, aculeated; outer lip yellow, thickened, notched below at the columella.

GRAY. Zoology of Beechy's Voyage, p. 145, t. 38, f. 23.

Hab. ——?

We have met with shells resembling this, but not such as could be considered characteristic. The original type seems to be lost.

Species 5. (Mus. Nobis.)

HELICINA OCHRACEA. *Hel. testâ obliquè angulatâ, solidâ, ochraceâ, concentricè tenuiter rugatâ; spirâ convexo-conicâ, obtusâ; ultimo anfractu medio subangulato; callo ventrali expanso, crasso; columellâ obliquâ, parvâ, subtubercularî; labio externo supernè subsinuato, medio expanso, ferè in lobam producto, ad columellam emarginato.*

THE OCHRACEOUS HELICINA. Shell obliquely angular, solid, ochraceous, concentrically finely wrinkled; spire convex-conical, obtuse; last whorl rather angular in the middle; ventral callus expanded, thick, columella oblique, small, subtubercular; outer lip subsinuous above, expanded in the middle, and produced almost into a lobe, emarginated at the columella.

POEY. Mem. p. 112, t. 11, f. 1–4.

Hab. Cuba.

Species 6. (Mus. Brit.)

HELICINA PALLIATA. *Hel. testâ subglobosâ, mediocriter tenui, fusco-rubescenti; spirâ conicâ, subacuminatâ; anfractibus subplanulatis, ultimo anfractu magno, callo ventrali tenui, expanso, columellâ brevi, aculeatâ; aperturâ magnâ, labio externo aurantio, lato, infrà ad columellam emarginato.*

THE CLOAKED HELICINA. Shell subglobose, moderately thin, reddish-brown; spire conical, subacuminated; whorls rather flattened, last whorl large, ventral callus thin, expanded, columella short, aculeated; aperture large, outer lip orange, broad, notched below at the columella.

C. B. ADAMS. Contributions to Conchology.

Helicina citrinolabris (var.), C. B. Adams.

Helicina albolabris (var.), C. B. Adams.

Helicina consanguinea, C. B. Adams.

Hab. Jamaica.

The above variations are scarcely of specific importance. The mouth is larger than in *Helicina Brownii*.

Species 7. (Mus. Nobis.)

HELICINA MICROSTOMA. *Hel. testâ depressâ, tenuiusculâ, pallidè (sed fasciatim magis vividè) fulvâ; spirâ depresso-conicâ; ultimo anfractu depresso, callo ventrali rotundo, columellâ obliquè aculeatâ; aperturâ latâ, compressâ, labio externo reflexo, supernè flexuosim depresso, infrà ad columellam profundè inciso-emarginato.*

THE SMALL-MOUTHED HELICINA. Shell depressed, rather thin, pale (but more brightly in bands) fulvous; spire depressed-conical; last whorl depressed, ventral callus rounded, columella obliquely aculeated; aperture broad, compressed, outer lip reflected flexuous, depressed above, with a deeply cut notch below at the columella.

C. B. ADAMS, New York Lyceum.

Hab. Jamaica.

A species easily known by the flexuously depressed form of its outer lip, and other peculiarities.

Species 8. (Fig. *a*, *b*, Mus. Brit.)

HELICINA MACILENTA. *Hel. testâ albâ, compressâ, semi-pellucidâ; spirâ parvâ, anfractibus paulò convexis; callo ventrali inconspicuo; columellâ parvâ, obliquè aculeatâ; aperturâ depressâ, labio externo supernè arcuato, infrà propè columellam valdè flexuoso.*

THE LEAN HELICINA. Shell white, compressed, semi-pellucid; spire small, whorls a little convex; ventral callus inconspicuous; columella small, obliquely aculeated; aperture depressed, outer lip arched, strongly flexuous below, near the columella.

C. B. ADAMS. Contributions to Conchology.

Hab. Jamaica

A pretty little species, remarkable for its depressed form, and a strong flexure in the lower part of the outer lip near the juncture.

9a

10

11

12a

13a

13b

12b

14a

15

9b

Sowerby del et lith

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE II.

Species 9. (Fig. *a*, *b*, Mus. Cuming in Brit.)

HELICINA BROWNII. *Hel. testâ subrotundâ, tenuiusculâ, fuscâ vel rubrâ, spiraliter substriatâ; spirâ conicâ; aperturâ intùs aurantiâ; labio interno albo, rotundè calloso, in dentem acuminatum terminante; labio externo compresso, reflexo, ad juncturam subflexuoso, profundè inciso, ad medium subangulato.*

BROWN'S HELICINA. Shell rather rounded, rather thin, brown or red, spirally a little striated; spire conical; aperture orange within; inner lip white, roundly callous, ending in an acuminated tooth; outer lip compressed, reflexed, a little flexuous at the juncture, deeply incised, a little angular at the middle.

GRAY. Zool. Journ., vol. i. p. 68, pl. 6, f. 10.
Helicina hirsuta (var. f. a.), C. B. Adams.
Helicina Hollandii (var.), C. B. Adams.
Hab. Jamaica.

Species 10. (Mus. Cum. in Brit.)

HELICINA CATALINIANA. *Hel. testâ angulato-subdepressâ, solidâ; lævigatâ, fumoso-fuscâ, aperturâ subtrapezoideâ, ad juncturam labiorum emarginatâ, labio interno subcomplanato; labio externo crasso.*

CATALINI'S HELICINA. Shell angular, subdepressed, solid, smooth, smoky-brown, aperture rather trapezoidal, notched at the juncture of the lips; inner lip rather flat; outer lip thick.

PFEIFFER. Blainville's Malacology.
Hab. Cuba.

Of a more solid and angular character than the preceding, and of a uniform smoky-brown colour.

Species 11. (Mus. Cum. in Brit.)

HELICINA BAYHAMENSIS. *Hel. testâ depressâ, subangulatâ, obliquè rugatâ, fuscâ, ad angulum anfractuum lineâ rubrâ cinctâ, suprà lineam luteo fasciatâ; aperturâ depressâ; labio interno complanato albido, ad terminum dentato; labio externo albo, rotundatim angulato.*

THE BAYHAMA HELICINA. Shell depressed, rather angular, obliquely wrinkled, brown, belted with a red line at the angle of the whorls, banded above the line with dull yellow; aperture depressed, inner lip flattened, whitish, toothed at the end, outer lip white, roundly angular.

POEY. Mem. p. 416.
Hab. Cuba.

Species 12. (Fig. *a*, *b*, Mus. Brit.)

HELICINA BRIAREA. *Hel. testâ solidâ, omnino pallidâ, vel fasciis duabus latis vividè rubris balteatâ, obliquè subtrochiformi, ad medium anfractuum obtusè angulatâ, labio interno ad terminum dentato, labio externo ad juncturam emarginato.*

THE BRIAREAN HELICINA. Shell solid, pale all over, or belted with two broad bright red bands, obliquely subtrochiform, obtusely angular at the middle of the whorls; inner lip toothed at the end; outer lip notched at the juncture.

POEY. Mem. p. 109, t. 10, f. 9-12.
Helicina ciliata (var.), Poey.
Helicina fossulata (var.), Poey.
Hab. Cuba.

Species 13. (Fig. *a*, Mus. Brit., *b*, Mus. Taylor.)

HELICINA SILACEA. *Hel. testâ crassâ, depresso-subtrochiformi, obliquè profundè rugatâ; stramineâ vel fusco-rubescenti late bifasciatâ, medio rubro lineatâ; labio interno ad terminum dentato; labio externo lato, crasso, subcomplanato, ad medium producto, subangulato, ad juncturam emarginato.*

THE YELLOW HELICINA. Shell thick, depressed, subtrochiform, obliquely deeply wrinkled; straw-

coloured, or with two broad bands of reddish-brown, and a red line in the middle; inner lip toothed at the end; outer lip broad, thick, toothed at the middle, notched at the juncture.

MORELET. Testacea Nov.

Hab. Cuba.

Species 14. (Fig. *a*, and fig. *b*, Pl. III., Mus. Brit.)

HELICINA MAJOR. *Hel. testâ subrotundâ, lævigatâ, rubrâ, infrà albidâ; spirâ conicâ; aperturâ semilunari, labio interno albo, calloso; labio externo subcomplanato, albo, ad juncturam leviter emarginato.*

THE LARGER HELICINA. Shell rather rounded, smooth, red, whitish below; spire conical; aperture semilunar, inner lip white, callous; outer lip rather flattened, white, slightly notched at the juncture.

GRAY. Zool. Journ., vol. i. p. 68, pl. 6, f. 10.

Helicina Gossei (var.), Pfeiffer.

Helicina nobilis (var.), C. B. Adams.

Hab. Jamaica.

With the general form and appearance of *H. Brownii*, this species is larger, and instead of an incised notch it is only slightly emarginated at the juncture of the two lips.

Species 15. (Mus. Cuming in Brit.)

HELICINA PULCHERRIMA. *Hel. depresso-subrotundâ, luteo-fuscâ, leviter rugatâ, medio rubro unilineatâ; spirâ obtusâ, subrotundâ; labio externo albido, supernè subcontracto; ad medium subproducto; ad juncturam emarginato.*

THE VERY BEAUTIFUL HELICINA. Shell rather rounded, depressed, yellowish-brown, slightly wrinkled, with a single red line in the centre; spire obtuse, a little rounded, outer lip whitish, a little contracted above, a little produced in the middle; notched at the juncture.

LEA. Trans. Amer. Phil. Soc., vol. v., pl. 19, f. 57.

Helicina crassa, D'Orbigny.

Hab. Cuba.

The surface is sometimes covered by a slightly hairy epidermis.

16

17

18

14 *b*

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21

22 *a*

22 *b*

a *b*

23

Sowerby del et lith.

Vincent Brooks Day & Son, Imp

HELICINA.

PLATE III.

Fig. 14, fig. *b*.

HELICINA MAJOR, *Gray*. This variety has been named *Helicina nobilis* by C. B. Adams. It is slightly more Trochiform, and the under side of the body whorl is white.

Species 16. (Mus. Brit.)

HELICINA VELUTINA. *Hel. testâ fusco-rubescenti, suprà depresso-conicâ, infrà lenticulari, medio anfractuum rotundatim angulatâ, aperturâ compressâ; labio externo subrotundo, reflexo, supernè flexuosim depresso, infrà inciso-emarginato; callo ventrali tenui, columellâ in dentem terminanti.*

THE VELVET HELICINA. Shell brownish red, depressed-conical above, lenticular beneath, roundly angular in the middle of the whorls, aperture compressed, outer lip a little rounded, reflected, flexuously depressed above, with an incised notch beneath; ventral callus thin, columella ending in a tooth.

POEY. Mémoire des Coquilles de Cuba, ii. p. 35, t. 4, f. 6, 7.

Hab. Cuba.

Species 17. (Mus. Brit.)

HELICINA GLOBOSA. *Hel. testâ albâ, solidâ, globosâ; spirâ mucronatâ; anfractu ultimo ventricoso, supernè spiraliter striato, infrà lævigato, post labium internum subumbilicato; labio interno latiusculo, complanato, aperturâ semilunari, labio externo intùs subincrassato.*

THE GLOBOSE HELICINA. Shell white, solid, globose; spire mucronate, last whorl ventricose, spirally striated above, smooth beneath, slightly umbilicated behind the inner lip; inner lip rather broad, flattened; aperture semilunar, outer lip thickened within.

GRAY. Zool. of Beechey's Voy., p. 145, pl. 38, f. 22.

Hab. Haiti.

Species 18. (Mus. Brit.)

HELICINA RHAPHOSTYLA. *Hel. testâ tenui, subdepressâ, pallide roseo-fulvâ; anfractibus ad suturam fasciâ albâ latiusculâ, tunc fasciâ rubrâ latâ, alterâque pallidiorâ spiraliter cinctâ, infrà rubro tinctâ, propè aperturam fusco unifasciatâ; aperturâ depressâ, labio externo suprà flexuosim depresso, albo, producto, reflexo, propè columellam inciso-emarginato, callo ventrali rotundo, columellâ acutè unidentatâ.*

THE BEAK-PILLARED HELICINA. Shell thin, subdepressed, pale rose-brown; whorls spirally belted with a white, rather broad band at the suture, then with a broad red band and another paler, stained below with red, with a band of brown near the aperture; aperture depressed, outer lip flexuously depressed above, white, produced, reflected, columella ending in a sharp single tooth.

PFEIFFER. Proc. Zool. Soc. 1856.

Hab. ——?

Species 19. (Mus. Brit.)

HELICINA CHRYSOSTOMA. *Hel. testâ trochiformi, albâ, spiraliter costatâ; spirâ conicâ, acuminatâ, aperturâ intùs vividè aureâ; labio externo pallide aureo, retrorsum subexpanso; columellâ subtrigonâ, complanatâ; cum labio externo anticè continuo.*

THE GOLD-MOUTHED HELICINA. Shell trochiform, light, white, spirally ribbed; spire conical, acuminated, aperture bright golden within; outer lip pale golden, expanded backwards; columella subtrigonal, continuous with the outer lip.

SHUTTLEWORTH. Sowerby's Thesaurus Conchyliorum. Helicina (2nd) Pl. III. f. 109, 110.
Hab. Cuba.

A very pretty example of the light trochiform group.

Species 20. (Mus. ——?)

HELICINA SINUOSA. *Hel. testâ solidâ, albâ, subtrochiformi, supernè conicâ, infernè rotundato-subconvexâ, spiraliter striatâ, medio anfractuum subcarinatâ; aperturâ subauriformi, labio externo rotundo, supernè sinuatim depresso, propè juncturam anticam sinuato; labio interno anticè in columellam tortuam, posticè in plicam callosam terminanti.*

THE SINUOUS HELICINA. Shell solid, white, somewhat trochiform, conical above, rounded and a little compressed beneath, spirally striated, slightly keeled in the middle of the whorls, aperture somewhat auriform, outer lip round, sinuously depressed above, sinuated near the anterior junction, inner lip terminating anteriorly in a tortuous columella, posteriorly in a callous fold.

PFEIFFER. Zeitsch. für Malak. 1830.
Hab. Mexico.

The aperture of this species is most curiously formed, a sinuous depression in the upper part of the outer lip and a callous semicircular plait on the inner lip near the junction, forming together a kind of loop.

Species 21. (Mus. Brit.)

HELICINA MAXIMA. *Hel. testâ latâ, subcompressâ, lævigatâ, albâ; spirâ paulò elevatâ, anfractu ultimo compresso-rotundato, callo ventrali expanso, columellâ brevi; aperturâ semilunari, labio externo expanso, reflexo.*

THE VERY LARGE HELICINA. Shell broad, subcompressed, smooth, white; spire a little elevated, last whorl compressed, rounded; ventral callus expanded, columella short; aperture semilunar, outer lip expanded, reflected.

SOWERBY. Proc. Zool. Soc. 1842. Thes. Conch., pl. i. f. 2.
Hab. Jamaica.

Species 22. (Fig. *a*, *b*, Mus. Brit.)

HELICINA EXCAVATA. *Hel. testâ trochiformi, fulvâ, spiraliter striatâ; spirâ moderatè elevatâ, acuminatâ; apice mucronato; ultimo anfractu rotundato-subdepresso; aperturâ subrotundâ, intùs aureâ; labio externo tenui, planulato, reflexo, columellâ subtrigonâ, excavatâ.*

THE EXCAVATED HELICINA. Shell trochiform, fulvous, spirally striated; spire moderately elevated, acuminated; apex mucronated; last whorl rounded, subdepressed; aperture rather rounded, golden within; outer lip thin, flattened, reflected; columella subtrigonal, excavated.

PFEIFFER. Proc. Zool. Soc. 1835.
Hab. ——?

Species 23. (Fig. *a*, *b*, Mus. Brit.)

HELICINA ADAMSIANA. *Hel. testâ parvâ, rubescenti, lenticulari, lævigatâ; spirâ convexo-depressâ, obliquè leviter striatâ, labio externo albo supernè depresso, infrà propè juncturam tumidiusculo, subflexuoso, columellâ brevissimâ, arcuatâ.*

THE ADAMSIAN HELICINA. Shell small, reddish, lenticular, smooth, spire convexly depressed, obliquely slightly striated, outer lip white, depressed above, rather swelled below near the junction, subflexuous, columella very short, curved.

PFEIFFER. Proc. Zool. Soc. 1842. Sowerby's Thesaurus, fig. 71, 72.
Hab. Jamaica.

24

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28

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b

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp

HELICINA.

PLATE IV.

Species 24. (Mus. Brit.)

HELICINA EXSERTA. *Hel. parvâ, lævigatâ, albidâ, supernè subelevatâ, infernè sublenticulari; spirâ tumidâ, anfractibus parvis, rubro-fuscis, lateribus convexis; ultimo anfractu tumido, infrà medium leviter carinato; aperturâ parvâ, depressâ, intùs subaureâ, columellâ parvâ, acutâ; labio externo ad junctu*[illegible]*m emarginato.*

THE EXSERTED HELICINA. Shell small, smooth, white, slightly elevated above, rather lenticular beneath; spire tumid, whorls small, reddish-brown, with convex sides; last whorl tumid, slightly keeled below the middle; aperture small, depressed, somewhat golden within; columella small, sharp; outer lip notched at the junction.

GUNDLACH. Pfeiffer, Malak. Bl. 1858.

Hab. Cuba.

Species 25. (Mus. Brit.)

HELICINA INTUSPLICATA. *Hel. testâ tenuiùsculâ, fulvo-rubescenti, supernè conicâ, infernè lenticulari; spirâ subelevatâ, conicâ, anfractibus brevibus, ad latera rectis; anfractu ultimo rotundatim angulato; columellâ brevi, trigonâ; labio interno tenuissimo; labio externo albido, supernè subdepresso, ad juncturam anticam emarginato, et intùs spiraliter uniplicato.*

THE MOUTH-PLAITED HELICINA. Shell rather thin, reddish-fulvous, conical above, lenticular below; spire somewhat elevated, conical, whorls short, straight at the sides; last whorl roundly angular; columella short, trigonal, inner lip very thin; outer lip whitish, slightly depressed above, emarginated and single-plaited within at the anterior junction.

PFEIFFER. Proc. Zool. Soc. 1850. Thesaurus Conchyliorum, vol. iii. Helicina, f. 60.

Hab. ——?

Species 26. (Mus. Brit.)

HELICINA SUCCINEA. *Hel. testâ tenui, lævigatâ, succineâ, spirâ depresso-conicâ; ultimo anfractu subdepresso, subangulato; labio externo tenui, medio producto, propè columellam leviter emarginato; columellâ trigonâ.*

THE AMBER HELICINA. Shell thin, smooth, amber-coloured, spire depressed-conical; last whorl rather depressed, slightly angular; outer lip thin, slightly notched near the columella, produced in the middle, columella trigonal.

PFEIFFER. Zeitschrift Malak. 1850. Sowerby's Thesaurus Conchyliorum.

Hab. ——?

Species 27. (Mus. Sowerby.)

HELICINA TITANICA. *Hel. testâ crassâ, supernè depresso-conicâ, infrà rotundo-convexâ, obliquè tenuiter rugatâ; spirâ obtusâ, anfractibus depressis, rubris, ultimo anfractu medio angulato, luteo fasciato, infrà angulum rubro unilineato; labio interno lato, rotundo, calloso; columellâ unidentatâ; labio externo albo, crasso, lato, planulato, supernè depresso, supra medium subexcavato, ad medium producto, ad juncturam columellâ leviter emarginato; operculo rubro.*

THE TITANIC HELICINA. Shell thick, depressed-conical above, rounded-convex beneath, obliquely finely wrinkled; spire obtuse, whorls depressed, red; last whorl angular in the middle, banded with yellow, with a line of red below the angle; inner lip broad, rounded, callous; columella with a single tooth; outer lip white, thick, wide, flattened, depressed above, a little excavated above the middle, produced at the middle, slightly notched at the juncture with the columella; operculum red.

POEY. Mém. p. 110. Sowerby's Thes. Conch. fig. 2.

Hab. Cuba.

One of the largest species, resembling *Helicina Briarea*, but obliquely wrinkled.

Species 28. (Fig. *a*, *b*, Mus. Brit.)

HELICINA DUBIOSA. *Hel. testâ subcompressâ, tenui, luteâ*

vel roseo-fulvâ; spirâ depresso-conicâ, anfractibus parvis, brevibus; ultimo anfractu compresso, medio rotundo, columellâ trigonâ, labio externo albo, tenui, ad juncturam vix emarginato.

THE DUBIOUS HELICINA. Shell subcompressed, thin, yellowish or rose-fulvous; spire depressed-conical, with small, short whorls; last whorl compressed, rounded in the middle, columella trigonal, outer lip white, thin, scarcely emarginated at the junction.

C. B. ADAMS. Contributions to Conchology, vol. vi. p. 93.

Hab. Jamaica.

Species 29. (Fig. *a*, *b*, Mus. Brit.)

HELICINA ROTUNDA. *Hel. testâ heliciformi, subglobosâ, luteâ, supernè fulvo-rubescenti, lævigatâ, tenuiùsculâ; spirâ subelevatâ, lateribus convexis, anfractibus parvis; ultimo anfractu subdepresso; callo ventrali rotundato; columellâ brevi, subtrigonâ; aperturâ semilunari; labio externo tenui, reflexo, ad juncturam vix emarginato.*

THE ROUNDED HELICINA. Shell heliciform, subglobose, yellowish, reddish-brown above, smooth, rather thin, spire slightly elevated, with convex sides, whorls small; last whorl a little depressed; ventral callus rounded, columella short, a little trigonal; aperture semilunar; outer lip thin, reflected, scarcely emarginated at the junction.

D'ORBIGNY. Mollusques de l'Ile de Cuba, p. 252.

Hab. Cuba.

Species 30. (Mus. Brit.)

HELICINA VIRGINEA. *Hel. testâ globosâ, solidâ, supernè acuminatâ, infernè rotundâ, spiraliter striatâ; spirâ elevatâ, mucronatâ; aperturâ semilunari; labio columellari infrà medium lato, excavato; labio externo intùs incrassato, ad marginem acuto, infrà medium producto; operculo crasso, extùs granuloso.*

THE VIRGIN HELICINA. Shell globose, solid, acuminated above, rounded beneath, spirally striated; spire elevated, mucronate; aperture semilunar, columellar lip below the middle wide, excavated; outer lip thickened within, sharp at the edge, produced beneath the middle; operculum thick, granular outside.

LEA. Obs. on Unio and other Land Shells, vol. i. p. 162, t. 19, f. 58.

Helicina ampullina, Ferrussac.

Hab. Cuba.

Species 31. (Mus. Brit.)

HELICINA MEGASTOMA. *Hel. testâ subglobosâ, tenui, lævigatâ; fulvâ vel rubro-fuscâ; spirâ elevatâ, conicâ; ultimo anfractu rotundato; callo ventrali subrotundo, aperturâ majùsculâ; columellâ parvâ, acutâ; labio externo rotundo, angusto, ad juncturam leviter emarginato.*

THE LARGE-MOUTHED HELICINA. Shell subglobose, thin, smooth; fulvous or reddish-brown; spire elevated, conical, last whorl rounded; ventral callus rather rounded; aperture rather large, columella small, sharp; outer lip rounded, narrow, slightly emarginated at the junction.

C. B. ADAMS. Contributions to Conchology.

Helicina affinis, C. B. Adams (var. ?).

Hab. Jamaica.

Species 32. (Mus. Brit.)

HELICINA LITTORALIS. *Hel. testâ subtrochiformi, tenui, lævigatâ, fusco-rubescenti; spirâ conicâ; ultimo anfractu rotundo; columellâ parvâ, trigonâ; labio externo supernè declivi, luteo, planato, tenui, subexpanso, ad juncturam leviter emarginato.*

THE LITTORAL HELICINA. Shell somewhat trochiform, thin, smooth, reddish-brown; spire conical, last whorl rounded; columella small, trigonal, outer lip sloped above, yellow, flat, thin, a little expanded, slightly notched at the junction.

GUNDLACH. ——?

Hab. Barraccas, Cuba.

Species 33. (Mus. Brit.)

HELICINA CRASSICOSTATA. *Hel. testâ compresso-globosâ, albâ, crassâ, spiraliter crebrè costatâ; columellâ latâ, subexcavatâ, rectiùsculâ; aperturâ subrotundâ ad juncturam intùs plicatâ; labio externo lato, planulato, supernè vix depresso.*

THE THICK-RIBBED HELICINA. Shell compressed-globose, white, thick, spirally closely ribbed; columella broad, subexcavated, rather straight; aperture somewhat beaked, with an interior plait at the juncture; outer lip broad, flattened, very slightly depressed above.

SOWERBY. Thesaurus Conchyliorum, Helicina, Species 61, Plate III., f. 97.

Hab. ——?

The locality of this apparently unique shell is unknown.

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38 b

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38 c

Sowerby del et lith

Vincent Brooks Day & Son, Imp

HELICINA.

PLATE V.

Species 34. (Mus. Brit.)

HELICINA RUBELLA. *Hel. testâ parvâ, compressâ, sublenticulari, rubrâ; ultimo anfractu medio subcarinato, suprà et infrà angulum æqualiter convexo, aperturâ parvâ, callo ventrali rotundo, columellâ parvâ, obliquâ, dentiformi; labio externo ad columellam paulò emarginato.*

THE LITTLE RED HELICINA. Shell small, compressed, sublenticular, red; last whorl slightly keeled in the middle, equally convex above and below the angle, aperture small, ventral callus round, columella small, oblique, tooth-like; outer lip a little emarginated at the columella.

PFEIFFER. Proc. Zool. Soc. 1853.

Hab. St. Thomas, West Indies.

Species 35. (Mus. Brit.)

HELICINA MINIMA. *Hel. testâ minutâ, solidâ, fulvâ, compressâ, sublenticulari; spirâ breviter conicâ; ultimo anfractu infrà rotundatim convexo, medio depresso-rotundo; columellâ albâ, obliquâ, dentiformi, parvâ; labio externo ad junctura paulò emarginato.*

THE SMALL HELICINA. Shell very small, solid, fulvous, compressed, sublenticular; spire shortly conical, last whorl roundly convex below, depressed, rounded in the middle; columella white, oblique, tooth-shaped, small; outer lip a little emarginated at the juncture.

D'ORBIGNY. Mollusques de l'Ile de Cuba, p. 253.

Hab. St. Thomas's, West Indies.

Species 36. (Mus. Brit.)

HELICINA ELECTRINA. *Hel. testâ subglobosâ, luteâ; spirâ conicâ paulò elevatâ; anfractu ultimo rotundatim subcompresso, callo ventrali parvo, columellâ parvâ, tenui, albâ, dentiformi, subobliquâ; aperturâ infrà medium paulò productâ, labio externo ad juncturam paulò emarginato.*

THE AMBER HELICINA. Shell subglobose, yellowish; spire conical, a little elevated; last whorl roundly subcompressed, ventral callus small, columella small, thin, white, tooth-like, somewhat oblique; aperture a little produced below the middle, outer lip a little emarginated at the juncture.

PFEIFFER. Proc. Zool. Soc. 1859.

Hab. Aroo Island, Eastern Seas.

Species 37. (Mus. Brit.)

HELICINA BEHANIANA. *Hel. testâ parvâ, depressâ, sublenticulari, obscurè fulvâ; spirâ breviter conicâ; callo ventrali parvo, columellâ tenui, obliquâ, cum labio externo confluenti; labio externo supernè depresso, sinuato, tumido.*

THE BEHANIAN HELICINA. Shell small, depressed, rather lenticular, dull fulvous; spire shortly conical; ventral callus small, columella thin, oblique, confluent with the outer lip, outer lip depressed above, sinuous, tumid.

PFEIFFER. Proc. Zool. Soc., 1859, p. 29.

Hab. Nicobar Island.

In this species is observed the first indication of those callous sinuosities in the outer lip, which, passing through gradations in several species, become distinct teeth in *H. aureola.*

Species 38. (Fig. *a*, *b*, *c*, Mus. Brit.)

HELICINA REGINA. *Hel. testâ magnâ, globosâ, spiraliter striatâ, variè pictâ; spirâ conicâ, anfractibus convexiusculis; columellâ planulatâ, subtrigonâ; labio*

externo suprà multò et infrà paulò sinuatim emarginato, hinc trilobato; lobâ medianâ productâ, linguæformi.

THE ROYAL HELICINA. Shell large, globose, spirally striated, variously painted, spire conical, whorls rather convex; columella flattened, subtrigonal; outer lip above much, and below a little sinuously emarginated, thus trilobate, middle lobe produced, tongue-shaped.

MORELET. Test. Nov. 10.

Helicina unguiculata, Poey (var. f. 104).

Helicina multistriata, Velasques.

Helicina maculosa, Newcombe.

Hab. Cuba.

Species 39. (Mus. Brit.)

HELICINA RETRACTA. *Hel. testâ subglobosâ, fusco-rubescenti; spirâ convexâ; ultimo anfractu rotundo, infrà subdepresso; columellâ minutâ, quasi retractâ, labio externo anticè obliquè producto, ad juncturam acclivi, paulò emarginato.*

THE RETRACTED HELICINA. Shell subglobose, reddish-brown; spire convex; last whorl rounded, slightly depressed below; columella very small, as it were drawn back; outer lip anteriorly obliquely produced, sloped upwards at the junction, a little emarginated.

POEY. Mém. vol. i. p. 116, tab. 12, fig. 20-26.

Hab. Cayajabos, Cuba.

Species 40. (Mus. Brit.)

HELICINA SPRUCEI. *Hel. testâ subroseâ, solidâ; spirâ subpyramidatâ, lateribus planulatis; callo ventrali tenui, parvo; columellâ trigonâ, labio externo angustè reflexo, ad juncturam leviter emarginato.*

SPRUCE'S HELICINA. Shell rather pink, solid; spire subpyramidal, with flattened sides; ventral callus thin, small, columella trigonal, outer lip narrowly reflected, slightly emarginated at the junction.

PFEIFFER. Proc. Zool. Soc. 1857.

Hab. Tarapota, Andes.

Species 41. (Mus. Brit.)

HELICINA ORESIGENA. *Hel. testâ subgloboso-compressâ, roseo-fuscescente, spirâ lenticulari; anfractu ultimo rotundo-depresso; columellâ parvâ, trigonâ; labio externo angustè reflexo, ad juncturam vix emarginato.*

THE MOUNTAIN-BORN HELICINA. Shell subglobose-compressed, pinky-brown, spire lenticular; last whorl roundly depressed; columella small, trigonal; outer lip narrowly reflected, scarcely emarginated at the juncture.

D'ORBIGNY. Synopsis, p. 28.

Hab. Bolivia.

Species 42. (Mus. Brit.)

HELICINA SUBFUSCA. *Hel. testâ compressâ, subangulatâ, succineâ; spirâ depresso-conicâ; ultimo anfractu depresso-subangulato; callo ventrali subrotundo; columellâ parvâ, dentiformi; labio externo tenui, propè columellam paulò emarginato.*

THE BROWNISH HELICINA. Shell compressed, rather angular, amber-coloured; spire depressed-conical; last whorl depressed-subangular; ventral callus rather rounded; columella small, tooth-shaped; outer lip thin, a little emarginated near the columella.

MENKE. Synopsis, p. 79.

Helicina rotellina (var.) Potiez et Michaud.

Helicina Hornbeckii (var.) Philippi.

Hab. Porto Rico.

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44 a

47 a

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44 b

a

b

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HELICINA.

PLATE VI.

Species 43. (Mus. Brit.)

HELICINA SCOPULARUM. *Hel. testâ trochiformi, elevatâ, acuminatâ, lævi, versùs apicem aureâ, anfractu ultimo lacteo, infrà medium subangulato; aperturâ subtrigonâ, intùs aureâ, labio externo laminato, reflexo, anticè producto, columellâ trigonâ.*

THE ROCK HELICINA. Shell trochiform, elevated, acuminated, smooth, golden towards the apex, last whorl milky, slightly angular below the middle; aperture subtrigonal, golden within, outer lip laminar, reflected, columella trigonal.

MORELET. Cub. Test. Nov., p. 20.

Hab. Cuba.

A narrow little shell of the conical form.

Species 44. (Fig. *a*, *b*, Mus. Brit.)

HELICINA COLUMELLARIS. *Hel. testâ trochiformi, lævi, versùs apicem aureâ, ventricosâ, acuminatâ, ultimo anfractu convexo, vix angulato, roseo-lacteo; aperturâ subtrigonâ, intùs aureâ, columellâ rectiùsculâ, rubrâ, labio externo reflexo, planulato.*

THE COLUMELLAR HELICINA. Shell trochiform, smooth, yellowish towards the apex, ventricose, acuminated, last whorl convex, scarcely angular, milky-pink; aperture subtrigonal, golden within, columella rather straight, red, outer lip reflected, flattened.

POEY. Mem. II., p. 14, t. 1, f. 19.

Helicina Blandiana, Gundlach.

Helicina acuminata, ——?

Hab. Cuba.

One of the most ventricose of the conical form, distinguished by a red columella.

Species 45. (Mus. Brit.)

HELICINA PYRAMIDATA. *Hel. testâ parvâ, pallidè subviridi, conicâ, elevatâ, acuminatâ; ultimo anfractu parvo, rotundato, aperturâ subtrigonâ; labio externo producto, leviter reflexo, columellâ rectiùsculâ, albâ, trigonâ.*

THE PYRAMIDAL HELICINA. Shell small, pale greenish, conical, elevated, acuminated; last whorl small, rounded, aperture subtrigonal; outer lip produced gently reflected, columella rather straight, trigonal.

SOWERBY. Thesaurus Conchyliorum, Part 25, Helicina, Pl. V. f. 157.

Hab. Cuba.

Species 46. (Mus. —— ? Copied.)

HELICINA FESTA. *Hel. testâ trochiformi, pallidè cæruleâ, acuminatâ, spiraliter foveolatâ; ultimo anfractu angulato; aperturâ angulatâ, sanguineâ, labio externo anticè producto; columellâ laminatâ, obliquâ.*

THE FESTIVE HELICINA. Shell trochiform, pale-bluish, acuminated, spirally pitted; last whorl angular; aperture angular, sanguineous, outer lip produced anteriorly; columella laminated, oblique.

GUNDLACH in Poey Mem. II., p. 15.

Hab. Cuba.

Species 47. (Fig. *a*, *b*, Mus. Brit.)

HELICINA JUGULATA. *Hel. testâ trochiformi, eleganter acuminatâ; anfractibus ad suturam albo vel aureo fasciatis, infrà fasciam rubris vel vividè aureis, vel rubro-lacteis; aperturâ subtrigonâ, labio externo planulato, validè reflexo, columella sanguineâ.*

THE STRANGLED HELICINA. Shell trochiform, elegantly acuminated; whorls banded with white or gold at the suture, red or bright yellow, or pinky-white, below the band; aperture subtrigonal, outer lip flattened, strongly reflected, columella sanguineous.

POEY. Mem. Cub. II., p. 14, t. 1. f. 19.

Hab. Cuba.

The lip is suddenly reflected so as to form almost a right angle with the body whorl.

Species 48. (Fig. *a*, *b*, Mus. Brit.)

HELICINA EXACUTA. *Hel. testâ stramineâ, lævi, trochiformi; spirâ subdepressâ, acuminatâ; ultimo anfractu infrà medium angulatâ, concinnè carinatâ; aperturâ subtrigonâ, labio interno rubro, columellâ obliquâ, labio externo infrà medium angulato.*

THE SHARPENED HELICINA. Shell straw-coloured, smooth, trochiform; spire subdepressed, acuminated; last whorl angular below the middle, neatly keeled; aperture subtrigonal, inner lip red, columella oblique, outer lip angular below the middle.

POEY. Mem. II., p. 114.

Helicina Straminea, Moricand.

Hab. Cuba.

Species 49. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CONOIDEA. *Hel. testâ parvâ, albidâ, depresso-trochiformi; anfractibus planiùsculis, angustis, ultimo anfractu subdepresso, infrà medium acutè angulato; aperturâ parvâ, labio externo supernè declivi, medio angulato, infrà subrotundâ.*

THE CONE-SHAPED HELICINA. Shell small, whitish, depressed, trochiform; whorls rather flat, narrow, last whorls depressed, sharply angular below the middle; aperture small, outer lip sloped above, angular in the middle, a little rounded below.

PFEIFFER. Proc. Zool. Soc. 1853.

Hab. Barbadoes.

Species 50. (Mus. Brit.)

HELICINA SUBTURRITA. *Hel. testâ parvâ, tenui, viridi, subtrochiformi; spirâ acuminatâ, conicâ, anfractibus supernè excavatis, medio angulatis, ultimo anfractu infrà convexo; columellâ rotundâ, aculeatâ.*

THE SUBTURRETED HELICINA. Shell small, thin, green, subtrochiform; spire acuminated, conical, whorls excavated above, angular in the middle, last whorl convex; columella rounded, needle-shaped.

SOWERBY. Thesaurus Conchyliorum, Part 25. Helicina, sp. 103, Pl. V. f. 185.

Hab. —— ?

A light, thin, horny species with the whorls curiously hollowed above and angular in the centre.

51

52

53a.

53b

54a

55a

55b

44b

56a

56b

57

58

Sowerby del et lith

Vincent Brooks Day & Son Imp

HELICINA.

PLATE VII.

Species 51. (Mus. Brit.)

HELICINA CARINATA. *Hel. testâ parvâ, stramineâ, supernè depresso-conicâ, infrà lenticulari; spirâ parvâ; ultimo anfractu medio carinato; aperturâ trapezoideâ; labio externo albo, rotundo, medio angulato, cum columellâ confluenti.*

THE CARINATED HELICINA. Shell small, straw-coloured, depressed-conical above, lenticular beneath; spire small; last whorl keeled in the middle; aperture trapezoidal; outer lip white, rounded, angular in the middle, confluent with the columella.

D'ORBIGNY. Moll. Amér. Mérid., p. 360, pl. 46, 66-9.

Helicinia Fischeriana, Montrougier.

Hab. New Granada.

Species 52. (Mus. Brit.)

HELICINA TROCHIFORMIS. *Hel. testâ conicâ, lævi, aureâ, spirâ elevatâ, acuminatâ, anfractibus planulatis; ultimo anfractu infrà convexo, medio carinato; carinâ albâ, acutâ; aperturâ parvâ, labio externo albo, reflexo, suprà sinuatim depresso, ad medium producto, elevato; columellâ parvâ, obliquâ, aculeatâ.*

THE TROCHIFORM HELICINA. Shell conical, smooth, golden, spire elevated, acuminated, whorls flat; last whorl convex below, keeled in the middle; keel white, sharp; aperture small, outer lip white, reflected, sinuously depressed above, produced at the middle, elevated; columella small, oblique, aculeated.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Isle of Negroes, Philippines.

The form of the lip differs from that of the most laterally compressed variety of *Helicina acutissima*, which the shell otherwise slightly resembles.

Species 53. (Fig. *a*, *b*, Mus. Brit.)

HELICINA RHODOSTOMA. *Hel. testâ suprà infràque lenticulari, medio acutè carinatâ, albâ vel fulvâ, margine aperturæ rubro; spirâ brevi, obtusè conicâ, aperturâ subquadratâ, columellâ supernè rotundatim callosâ, infrà in spinam acutissimam producto; labio externo planulatim reflexo, medio acutè angulato.*

THE PINK-MOUTHED HELICINA. Shell lenticular above and below, sharply keeled in the middle, white or fulvous, mouth red-margined; spire short, obtusely conical, aperture subquadrate, columella roundly callous, reflected above, produced into a very sharp spire below; outer lip flatly reflected, sharply angular in the middle.

GRAY. Zool. Journ., vol. i. p. 68.

Hab. ——?

Species 54. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CONCENTRICA. *Hel. testâ pallidè stramineâ, vel subroseâ, obscurè notatâ; supernè acutè conicâ, medio acutè carinatâ, infrà convexâ, omnino spiraliter striatâ; aperturâ subrhomboideâ, labio externo medio rotundato, columellâ parvâ, arcuatâ.*

THE CONCENTRIC HELICINA. Shell pale straw, rose-tinted, obscurely marked; acutely conical above, acutely keeled in the middle, convex below, all over spirally striated; aperture subrhomboidal, outer lip rounded in the middle, columella small, arched.

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. Venezuela.

Species 55. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SPINIFERA. *Hel. testâ tenui, ventricosâ, supernè conicâ, infrà convexâ, medio acutè carinatâ, aureâ, infrà carinam rubro unilineatâ, vel purpureâ obliquè strigatâ, maculis rubris ad suturam carinamque ornatâ; columellâ parvâ, in spinam acutam productâ; labio externo albo, reflexo, ad medium angulato, producto.*

THE SPINIFEROUS HELICINA. Shell thin, ventricose,

conical above, convex beneath, sharply carinated in the middle, golden, with a single red line below the keel, or purple, obliquely striped, ornamented with red spots at the suture and keel; columella small, produced into a sharp spire; outer lip white, reflected, angular and produced in the middle.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. Solomon's Isle.

Both varieties of this species are very beautiful.

Species 56. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SUAVIS. *Hel. testâ conicâ, medio carinatâ, infrà carinam compresso-convexâ; aureâ, ad suturam carinamque maculis parvis rubris, infrà carinam lineâ rubra notatâ, vel purpureâ supernè rubro reticulatâ; aperturâ medio infràque angulatâ.*

THE PLEASANT HELICINA. Shell conical, keeled in the middle, compressed-convex below the keel; golden, marked at the suture and keel with small red spots, below the keel with a red line, or purple reticulated above with red; aperture angular above and beneath.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Admiralty Island.

One of the prettiest of the species, more elevated and less compressed than the preceding, and without a spire at the lower angle of the mouth.

Species 57. (Mus. Brit.)

HELICINA ANGULATA. *Hel. testâ compressâ, supernè obtusè conicâ, infrà lenticulari, medio carinatâ, omnino fulvescenti, suprà et paulo infrà carinam strigis parvis notatâ; columellâ paulo arcuatâ, infrà spiniferâ; labio externo medio angulato.*

THE ANGULAR HELICINA. Shell compressed, obtusely conical above, lenticular beneath, keeled in the middle, all over brownish, above and a little under the keel marked with small stripes; columella a little arched, spiniferous beneath; outer lip angular in the middle.

SOWERBY. Thesaurus Conchyliorum, sp. 215, fig. 414.

Hab. Brazil.

Species 58. (Mus. Brit.)

HELICINA SUTURALIS. *Hel. testâ compressâ, lenticulari, pallidè luteâ, medio acutè carinatâ, suprà carinam rubro obliquè strigato; aperturâ acutè angulatâ, labio externo acuto.*

THE SUTURAL HELICINA. Shell compressed, lenticular, pale yellow, sharply keeled in the middle, obliquely striped with red above the keel; aperture sharply angular, outer lip sharp.

MARTENS. Berlin Academy, 1864.

Hab. Amboyna, Ceram.

This little lenticular shell appears to be full-grown, but has no signs of thickening or reflexion in the outer lip.

59

60 a

60 c

61

62 a

62 b

63 a

63 b

63 c

a

64

b

Sowerby, del et lith

Vincent Brooks Day & Son, Imp.

HELICINA.

PLATE VIII.

Species 59. (Mus. Brit.).

HELICINA RUBROMARGINATA. *Hel. testâ conicâ, acuminatâ, pallidè aureâ, anfractibus inferioribus convexiùsculis; ultimo anfractu infrà medium carinato, infrà carinam subplanulato; aperturâ subdepressâ, angulatâ, labio externo reflexo, rubro, anticè cuneato; labio interno rubro, incrassato, columellâ angustâ, rubrâ, obliquâ.*

THE RED-MARGINED HELICINA. Shell conical, acuminated, pale golden, lower whorls rather convex; last whorl carinated below the middle, rather flattened beneath the keel; aperture rather depressed, angular, outer lip reflected, red, cuneate anteriorly; inner lip red, thickened, columella narrow, red, oblique.

GUNDLACH. Poey. Mem. Cub. II. p. 15.

Hab. Cuba.

Remarkable among the trochiform species for the deep red margin of the mouth.

Species 60. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SLOANEI. *Hel. testâ subtrochiformi, ventricosâ, pallidè fulvâ, costis obscuris spiralibus cinctâ; spirâ conicâ, acuminatâ, apice aureo; ultimo anfractu ventricoso, medio obtusè carinato; aperturâ subquadratâ, intùs aureâ, columellâ rectiùsculâ, angustâ, albâ; labio externo albo, leviter reflexâ, margine rotundo.*

SLOANE'S HELICINA. Shell subtrochiform, ventricose, pale fulvous, girt with obscure spiral ribs; spire conical, acuminated with golden apex; last whorl ventricose, obtusely carinated in the middle; aperture subquadrate, golden within, columella rather straight, narrow, white; outer lip white, slightly reflected, margin rounded.

D'ORBIGNY, Mollusques de Cuba, vol. i. p. 248.

Helicina Gouldiana, Pfeiffer.

Helicina lutèo-apicata, Poey.

Hab. Cuba.

Species 61. (Mus. Poey. Copied.)

HELICINA BASTIDIANA. *Hel. testâ compresso-conicâ, medio latâ, rotundatim angulatâ, viridi, spirâ subdepressâ, lateribus planiùsculis; aperturâ albâ, callo columellari rotundo, magno; columellâ brevissimâ, in tuberculam terminanti; labio externo reflexo, supernè subdepresso, ad medium in lobam planulatam producto.*

THE BASTIDIAN HELICINA. Shell compressed, conical, wide in the middle, roundly angular, green, spire subdepressed, sides flattened; aperture white, columellar callus rounded, large; columella very short, ending in a tubercle; outer lip reflected, depressed above, produced in the middle into a flattened lobe.

POEY. Mem., p. 416.

Hab. Cuba.

Species 62. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CUMINGII. *Hel. testâ subglobosâ, solidâ, roseâ, spirâ parvâ, obtusè conicâ, ultimo anfractu ventricoso, rubro maculato, vel epidermide viridi, strigato induto; aperturâ magnâ, subtrigonâ; callo columellari albo, rotundo; columellâ brevissimâ; labio externo albo reflexo.*

CUMING'S HELICINA. Shell subglobose, solid, rosy, spire small, obtusely conical, last whorl ventricose, spotted with red, or covered with a green striped epidermis; aperture large, subtrigonal; columellar callus white, rounded; columella very short; outer lip white, reflected.

PFEIFFER. Proc. Zool. Soc., 1845.

Hab. St. Domingo.

A large stout globose species.

Species 63. (Fig. *a*, *b*, *c*, Mus. Brit.)

HELICINA TURBINATA. *Hel. testâ globoso-conicâ, albidâ, rubro-fasciata, vel fulvâ, supernè rubescenti, vel*

omnino albâ; spirâ elevatâ, acuminatâ, anfractu ultimo rotundo, labio externo reflexo.

THE TURBINATED HELICINA. Shell globose-conical, whitish, banded with red, or fulvous, reddish above, or altogether white; spire elevated, acuminated, last whorl rounded, outer lip reflected.

WEIGMAN. In Menke's Synopsis.

Helicina Brandtii, Pfeiffer.

Hab. Mexico.

Species 64. (Fig. *a*, *b*, Mus. Brit.)

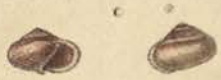
HELICINA CHRYSOCHASMA. *Hel. testâ angustâ, pyramidatâ, elevatâ, acuminatâ, lævi, roseo-lacteâ, nonnunquam apice rubro; aperturâ parvâ, intùs vividè rubro-aureâ; labio externo antice producto, reflexo, labio columellari crassiùsculo, columellâ minimâ.*

THE GOLDEN-MOUTHED HELICINA. Shell narrow, pyramidal, elevated, acuminated, smooth, pinky-white, sometimes pink-tipped; aperture small, bright-reddish golden within; outer lip anteriorly produced, reflected, columellar lip rather thick, columella extremely small.

POEY. Mem. Cub. I., tab. 25, f. 14-19.

Hab. Cuba.

The most pyramidal of all the species.



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Sowerby del. et lith.

Vincent Brooks Day & Son, Imp.

HELICINA.

PLATE IX.

Species 65. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SOLITARIA. *Hel. testâ compressâ, lenticulari, rubrâ, spirâ depressâ; ultimo anfractu lato, rotundo; aperturâ semicirculari, columellâ minutâ, labio externo rotundo, subplanulato, ad junctura emarginato.*

THE SOLITARY HELICINA. Shell compressed, lenticular, red, spire depressed; last whorl broad, rounded; aperture semicircular, columella minute, outer lip rounded, rather flattened, notched at the junction.

ADAMS (C. B.). Proc. Bost. Soc.

Helicina Guillingiana, Pfeiffer.

Hab. Jamaica.

Species 66. (Mus. Brit)

HELICINA POLITULA. *Hel. testâ parvâ, luteâ, trochiformi, substriatâ, spirâ acuminatâ; anfractu ultimo angulato, subcarinato; aperturâ subquadratâ, columellâ parvâ, albâ, paulò arcuatâ; labio externo albo, tenui, reflexo.*

THE POLISHED HELICINA. Shell small, yellowish, trochiform, slightly striated, spire acuminated; last whorl angular, subcarinated; aperture subquadrate, columella small, white, a little curved; outer lip white, thin, reflected.

POEY. Mem. I. p. 113, t. 5, f. 4-6.

Hab. Cuba.

Species 67. (Mus. Brit.)

HELICINA CALIDA. *Hel. testâ subglobosâ, spiraliter striatâ, albidâ, ad apicem et in aperturam rubescenti, crassâ, parvâ; apicè acuminato, anfractibus convexiùsculis; ultimo anfractu infrà medium carinato; aperturâ parvâ; labio interno expanso, calloso, rubro; labio externo incrassato, supernè depresso.*

THE WARM HELICINA. Shell subglobose, spirally striated, whitish, rather red at the apex and in the mouth, thick, small; apex acuminated, whorls rather convex; last whorl keeled below the middle; aperture small; inner lip expanded, callous, red; outer lip thickened, depressed above.

WEINLAND ——?

Hab. Bahamas.

Species 68. (Mus. Brit.)

HELICINA NITIDA. *Hel. testâ depressâ, fulvâ, tenuiùsculâ, suprà depresso-conicâ, infrà lenticulari; columellâ parvâ, trigonâ, acuminatâ; labio externo acuto, ante columellam leviter emarginato.*

THE SHINING HELICINA. Shell depressed, fulvous, rather thin, depressed-conical above, lenticular beneath; columella small, trigonal, acuminated; outer lip acute, slightly notched in front of the columella.

PFEIFFER. Weigman's Archives, 1839.

Helicina glabra? Gould.

Hab. Cuba.

The outer lip in this species is not reflected.

Species 69. (Mus. Brit.)

HELICINA LACINIOSA. *Hel. testâ subglobosâ, pallidâ; spirâ elevatâ, conicâ; ultimo anfractu depresso-subrotundo; post columellam complanato; columellâ parvâ, brevi; labio externo subexpanso, semicirculari, ante columellam vix excavato.*

THE HEMMED HELICINA. Shell subglobose, pale; spire elevated, conical; last whorl depressed and rounded, flattened behind the columella; columella small, short; outer lip a little expanded, semicircular, scarcely notched in front of the columella.

MIGHELS. Proc. Bost. Soc., 1845.

Hab. Sandwich Islands.

Species 70. (Mus. Brit.)

HELICINA INCRUSTATA. *Hel. testâ subglobosâ, pallidè fulvâ, supernè fusco-unifasciatâ; spirâ conicâ; ultimo anfractu depresso-subgloboso, aperturâ magnâ, semicirculari; labio externo angustè reflexo, lateraliter producto, ante columellam paulò emarginato; columellâ parvâ, trigonâ, complanatâ.*

THE ENCRUSTED HELICINA. Shell subglobose, pale fulvous, single-banded with brown above; spire conical; last whorl depressed-subglobose, aperture large, semicircular; outer lip narrowly reflected, laterally produced, a little notched in front of the columella; columella small, trigonal, flattened.

GUNDLACH. Pfeiffer Malak., 1859.

Hab. Cuba.

The spire is more raised and the semicircular mouth larger and more laterally produced than in *Helicina laciniosa*.

Species 71. (Mus. Brit.)

HELICINA STRIATULA. *Hel. testâ parvâ, obliquè concentricè striatâ, rubescenti, supernè depresso-conicâ, infrà lenticulari; aperturâ transversè suboblongâ, labio externo albo, angusto, rotundo, infrà paulò incrassato, cum columellâ confluenti; columellâ parvâ.*

THE STRIATED HELICINA. Shell small, obliquely concentrically striated, reddish, depressed-conical above, lenticular beneath; aperture transversely rather oblong, outer lip white, narrow, round, a little thickened below, confluent with the columella; columella small.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Martinique.

Species 72. (Mus. Brit.)

HELICINA ADAMSIANA. *Hel. testâ lenticulari, depressâ, fulvo rubescenti; ultimo anfractu in medio subangulato; aperturâ parvâ; labio externo albo, supernè sinuatim depresso, infrà propè junctúram sinuatim subincrassato.*

ADAMS'S HELICINA. Shell lenticular, depressed, reddish-fulvous; last whorl a little angular in the middle; aperture small; outer lip white, sinuously depressed above, sinuously somewhat thickened below near the juncture.

PFEIFFER. Proc. Zool., 1848.

Hab. Jamaica.

Species 73. (Mus. Brit.)

HELICINA FASCIATA. *Hel. testâ subdepressâ, lenticulari, albidâ, rubro tæniatâ et angulatim maculatâ, vel fulvo latè fasciatâ; aperturâ suboblongâ; labio externo angustè reflexo, medio producto, columellâ indistinctâ.*

THE BANDED HELICINA. Shell subdepressed, lenticular, whitish, banded and angularly spotted with red, or broadly banded with fawn colour; aperture rather oblong; outer lip narrowly reflected, produced in the middle, columella indistinct.

LAMARCK. Hist. Nat. Anim. sans Vert.

Helicina picta, Ferrussac.

Hab. Guadaloupe.

Species 74. (Mus. Brit.)

HELICINA DECLIVIS. *Hel. testâ parvâ, trochiformi, pallidè vinosâ, rubro supernè et paulo infrà carinam maculis rubris tessellatâ; spirâ elevatâ, lateribus convexiùsculis; ultimo anfractu infrà medium angulatâ, subcarinatâ; columellâ tenui; labio externo supernè declivi, angustè reflexo; obliquè producto.*

THE SLOPED HELICINA. Shell small, trochiform, pale vinous, tessellated above and a little below the keel with red spots; spire elevated, sides a little convex; last whorl angular and slightly keeled below the middle; columella thin; outer lip sloped above, narrowly reflected; obliquely produced.

GUNDLACH. Pfeiffer Malak. Bl. VII., 1860.

Hab. Cuba.

Species 75. (Mus. Brit.)

HELICINA ROTELLOIDEA. *Hel. testâ parvâ, trochiformi, luteâ, flammeis rubris supernè notatâ; anfractibus supernè subexcavatis, mediò subcarinato, infrà lenticulari; columellâ trigonâ, labio externo vix incrassato.*

THE ROTELLA-LIKE HELICINA. Shell small, trochiform, yellowish, marked above with red flames; whorls excavated above, slightly keeled in the middle, lenticular below; columella trigonal, outer lip scarcely thickened.

MIGHELS. Proc. Bost. Soc., 1845.

Hab. Sandwich Islands.

Species 76. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CORONULA. *Hel. testâ compressâ, supernè obtusissimè conicâ, infrà lenticulari, obliquè concentricè striatâ; ultimo anfractu compresso, subangulato, ad suturam tuberculis minutissimis coronato; aperturâ oblongâ; labio externo angusto, albo, suprà infràque sinuatim incrassato.*

THE LITTLE CROWN HELICINA. Shell compressed, very obtusely conical above, lenticular below, obliquely concentrically striated; last whorl compressed, rather angular, crowned at the suture with very minute tubercles; aperture oblong; outer lip narrow, white, sinuously thickened above and beneath.

SHUTTLEWORTH. Pfeiffer Malak., 1862.

Hab. Jamaica.

One of the most depressed of the species which have a sinuous thickening on the upper and lower part of the outer lip.

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HELICINA.

PLATE X.

Species 77. (Mus. Brit.)

HELICINA SPHÆROIDA. *Hel. testâ irregulariter subglobosâ, crassâ, subviridi; spirâ parvâ, anfractibus minutis; ultimo anfractu magno, suprà aperturam elevato, propè suturam tumido, infrà obtusè angulato; aperturâ parvâ, subtrigonâ, columellâ aciculatâ, labio externo supernè declivi, infrà medium angulato.*

THE SPHEROID HELICINA. Shell irregularly subglobose, thick, greenish; spire small, whorls minute; last whorl large, raised above the aperture, tumid near the suture, obtusely angular below; aperture small, subtrigonal, columella needle-shaped, outer lip sloped above, angular below the middle.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. Loyalty Island.

Species 78. (Mus. Brit.)

HELICINA PISUM. *Hel. testâ parvâ, luteâ, subglobosodepressâ, crassâ; spirâ parvâ, anfractibus apicalibus minutis; ultimo anfractu subdepresso, in medio angulato; aperturâ trigonâ, labio externo incrassato, infrà medium angulato.*

THE PEA HELICINA. Shell small, yellow, subglobosely depressed, thick; spire small, apical whorls minute; last whorl somewhat depressed, angular in the middle; aperture trigonal, outer lip thickened, angular below the middle.

PHILIPPI. Zeitschrift für Malacologie, 1847, p. 124.

Hab. Sandwich Islands.

A pretty little yellow species, resembling a dried pea.

Species 79. (Mus. Brit.)

HELICINA KEATII. *Hel. testâ magnâ, depressâ, supernè depresso-conicâ, infrà lenticulari, luteâ, ad angulum medianum albo, suprà medium rubro fasciatâ; anfractibus subplanulatis; ultimo anfractu depresso, medio angulato; aperturâ subtrigonâ, columellâ parvâ, acuminatâ, labio externo reflexo, medio producto.*

KEATE'S HELICINA. Shell large, depressed, conically depressed above, lenticular beneath, yellow, banded with white at the median angle and red above the middle; whorls a little flattened, last whorl depressed, middle angular; aperture rather triangular, columella small, acuminated, outer lip reflected, produced in the middle.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Granada.

Quite a large and striking shell among the generally small lenticular species.

Species 80. (Mus. Brit.)

HELICINA POEYI. *Hel. testâ subdepressâ, rotundâ, albidâ, fasciis rubris duabus spiralibus cinctâ, inter fascias maculis rubris regularibus ornatâ, spirâ depressâ; anfractu ultimo subrotundato; labio externo reflexo, medio producto; columellâ parvâ, rotundâ.*

POEY'S HELICINA. Shell subdepressed, rounded, whitish, girt with two spiral red bands, ornamented between the bands with regular red spots, spire depressed; last whorl rather rounded; outer lip reflected, produced in the middle; columella small, rounded.

PFEIFFER. Malak. VI., 1859.

Hab. Yateras, Cuba.

Species 81. (Fig. *a*, *b*, Mus. Brit.)

HELICINA ADSPERSA. *Hel. testâ subglobosâ, tenui, luteâ, variè rubro fasciatâ et maculatâ; spirâ, subdepresso-conicâ; ultimo anfractu ventricoso, rotundo; labio externo supernè tenui, depresso, medio producto, subexpanso.*

THE SPRINKLED HELICINA. Shell subglobose, thin,

yellowish, variously banded and spotted with red; spire subdepressed-conical; last whorl ventricose, rounded, outer lip thin, depressed above, produced and expanded in the middle.

PFEIFFER. Weigman's Archives, 1839.
Helicina variegata, Orbigny.
Helicina ornata? Sowerby.
Hab. Cuba.

Species 82. (Fig. *a*, *b*, Mus. Brit.)

HELICINA AMPLIATA. *Hel. testâ subgloboso-conicâ, albidâ, ad aperturam pallidè aureâ, vel fasciâ rubrâ unicâ pictâ; aperturâ subtrigonâ, columellâ parvâ, subplanulatâ; labio externo supernè depresso et contracto, medio planulato, in linguam producto.*

THE FULL HELICINA. Shell subglobose-conical, whitish, pale golden at the aperture, or painted with a single red band; aperture subtrigonal, columella small, rather flattened; outer lip depressed and contracted above, flattened in the middle, produced into a tongue.

C. B. ADAMS. Contributions to Conchology, n. 7, p. 101.
Hab. Jamaica.

This species exhibits, in an exaggerated form, the peculiar tightening above and production in the middle of the outer lip which is in a lesser degree characteristic of *Helicina adspersa* and some others.

Species 83. (Fig. *a*, *b*, *c*, Mus. Brit.)

HELICINA BELLULA. *Hel. testâ parvâ, subglobosâ, luteâ, variè rubro-fasciatâ; spirâ elevatâ, anfractibus apicalibus parvis, penultimo tumidiusculo, ultimo rotundo; aperturâ subtrigonâ, labio externo suprà medium sinuatim producto, medio tenuiter reflexo.*

THE HANDSOME LITTLE HELICINA. Shell small, subglobose, yellow, variously banded with red; spire elevated, apical whorls small, the penultimate rather tumid, last rounded; aperture subtrigonal, outer lip sinuously produced above the centre, thinly reflected in the middle.

GUNDLACH. Pfeiffer Malak. Bl. VI., 1859.
Helicina suturalis (var.) Gundlach.
Helicina perispherica ——? (var.)
Helicina Yungnensis ——? (var.)
Hab. Cuba.

Species 84. (Fig. *a*, *b*, *c*, Mus. Brit.)

HELICINA CONVEXA. *Hel. testâ subglobosâ, depressâ, utrinque sublenticulari, crassâ, luteâ vel albâ, fasciis maculisque variegatâ; aperturâ subdepressâ, labio externo subrotundo, augusto, medio paulò producto.*

THE CONVEX HELICINA. Shell subglobose, depressed, rather lenticular on both sides, thick, yellow or white, variegated with bands and spots; aperture rather depressed, outer lip rather rounded, narrow, middle a little produced.

PFEIFFER. Proc. Zool. Soc., 1848.
Hab. Bermuda.

Species 85. (Mus. Brit.)

HELICINA TÆNIATA. *Hel. testâ depresso-conicâ, tenui, luteâ, supernè rubro unifasciatâ; spirâ subdepressâ, anfractibus parvis; ultimo anfractu infrà lenticulari; aperturâ subtrigonâ; labio externo paulò reflexo.*

THE RIBBONED HELICINA. Shell depressed-conical, thin, yellow, single red-banded above; spire subdepressed, whorls small; last whorl lenticular below; aperture subtrigonal; outer lip a little reflected.

QUOY. Voyage de l'Astrolabe, Zool. II. p. 194.
Hab. Nanikoro.

Much lighter and less convex than *Helicina convexa*.

Species 86. (Mus. Brit.)

HELICINA REPANDA. *Hel. testâ parvâ, crassâ, depresso-subglobosâ, luteâ, rubro unifasciatâ; spirâ depresso-convexâ obtusâ, anfractibus parvis, ultimo anfractu subtùs rotundatim calloso; aperturâ subtrigonâ, labio externo supernè depresso, medio producto, infrà propè juncturam emarginato.*

THE BOWED HELICINA. Shell small, thick, depressed-subglobose, yellow, single-banded with red; spire depressed convex, obtuse, whorls small, last whorl roundly callous beneath; aperture subtrigonal, outer lip depressed above, produced in the middle, emarginated below near the junction.

PFEIFFER. Proc. Zool. Soc., 1855.
Hab. ——?

The lower lip recedes peculiarly at its junction with the columella.

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HELICINA.

PLATE XI.

Species 87. (Fig. *a*, *b*, Mus. Brit.)

HELICINA PLATYCHEILA. *Hel. testâ globosâ, aureâ, nonnumquam rubro propè marginem apicemque pictâ, lævigatâ; spirâ obtusâ, ad latera convexâ; ultimo anfractu compresso-ventricosâ, labio externo planulato, reflexo.*

THE FLAT-LIPPED HELICINA. Shell globose, gold-coloured, sometimes painted with red near the apex and margin, smooth; spire obtuse, convex at the sides; last whorl compressed, ventricose, outer lip flattened, reflected.

MÜHLFELDT. Verl. Berl. Gesch. I. 1, 219, t. 3, f. 11.

Helicina unicolor, Potiez et Michaud.

Hab. Martinique. Cuba.

Species 88. (Mus. Brit.)

HELICINA TILEI. *Hel. testâ subglobosâ, medio angulatâ, luteâ, aureo-fasciatâ, spirâ elevatâ, apice obtuso, lateribus convexis; ultimo anfractu medio angulato, subcarinato; aperturâ subtrigonâ, columellâ parvâ, acuminatâ; labio externo planulato, reflexo anticè, obliquè producto.*

TILE'S HELICINA. Shell subglobose, angular in the middle, yellow banded with bright golden yellow, spire elevated, apex obtuse, sides convex; last whorl angular in the middle, slightly keeled; aperture subtrigonal, columella small, acuminated; outer lip flattened, reflected anteriorly, obliquely produced.

PFEIFFER. Zeitschr. 1847, p. 150.

Hab. Brazil.

Species 89. (Mus. Brit.)

HELICINA FULVA. *Hel. testâ pallidissimè fulvâ, compressâ, angulatâ, spiraliter striatâ; spirâ conicâ, anfractibus planulatis; ultimo anfractu compresso, medio angulato; aperturâ subauriformi, labio externo rotundo, medio subangulato; labio interno rotundo, calloso, columellâ brevi, termino cuneato.*

THE FULVOUS HELICINA. Shell very pale, fulvous, compressed, angular, spirally striated; spire conical, whorls flattened; last whorl compressed, angular in the middle; aperture subauriform, outer lip rounded, rather angular in the middle; inner lip rounded, callous, columella short, cuneated at the end.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. ——?

Species 90. (Mus. Lord Northampton.)

HELICINA VIRIDIS. *Hel. testâ angulatâ, subcompressâ, lævigatâ, viridi, ad angulum albo-fasciatâ; spirâ depresso-conicâ; ultimo anfractu medio acutè carinatâ, suprà infràque convexiusculâ; columellâ albâ, rotundè callosâ, termino angulato.*

THE GREEN HELICINA. Shell angular, subcompressed, smooth, green, white-banded at the angle; spire depressed-conical; last whorl sharply keeled in the middle, rather convex above and beneath; columella white, roundly callous, angular at the end.

LAMARCK. Hist. Nat. Anim. sans Vert.

Hab. St. Domingo.

Species 91. (Mus. Brit.)

HELICINA BERYLINA. *Hel. testâ magnâ, aureâ, depresso-trochiformi, spirâ acuminatâ, anfractibus apicalibus parvis; ultimo anfractu lato, compresso, ad medium rotundatim angulato, callo columellari expanso, rotundato, rubro marginato, labio externo suprà infràque compresso, augusto, rotundato.*

THE BERYL HELICINA. Shell large, golden, depressed-trochiform, spire acuminated, apical whorls small; last whorl broad, compressed, roundly angular in the middle, columellar callus expanded, rounded, red-bordered, outer lip compressed above and beneath, narrow, rounded.

GOULD. Proc. Bost. Soc., 1847.

Hab. Fiji Islands.

Species 92. (Mus. Brit.)

HELICINA TENUILABRIS. *Hel. testâ depresso-angulatâ, lævè, castaneâ; spirâ depresso-conicâ; ultimo anfractu compresso, lato, rotundatim angulato; aperturâ intùs subroseâ, callo columellari flavido,*

rotundo, columellâ minutâ, aculeatâ, labio externo tenui, supernè depresso.

THE THIN-LIPPED HELICINA. Shell depressed-angular, smooth, chestnut; spire depressed-conical; last whorl compressed, wide, roundly angular; aperture pinkish within, columellar callus yellow, rounded, columella small, aculeated, outer lip thin, depressed above.

SOWERBY. Thesaurus Conchyliorum, Sp. 216, f. 375.

Hab. ——?

A rather compressed species with no thickening or reflexion of the outer lip.

Species 93. (Mus. Sowerby.)

HELICINA NODÆ. *Hel. testâ crassâ, pallidè fulvâ, globoso-subangulatâ; spirâ depresso-conicâ; ultimo anfractu supernè obliquè tenuiter rugato, infrà convexo-calloso, medio obtusè angulato; labio externo crasso, rotundatim reflexo; columellâ parvâ, brevi, intuberculum rotundum desinenti.*

NODE'S HELICINA. Shell thick, pale fulvous, subangularly globose; spire depressed-conical; last whorl finely, obliquely wrinkled above, convexly callous below, obtusely angular in the middle; outer lip thick, roundly reflected; columella small, short, ending in a rounded tubercle.

GUNDLACH ——?

Hab. Arango.

Species 94. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SUBSTRIATA. *Hel. testâ parvâ, crassâ, subglobosâ, spiraliter tenuissimè striatâ; spirâ convexâ; ultimo anfractu mediocri; aperturâ parvâ, subangulatâ; labio interno calloso, columellâ aculeatâ, obliquâ; labio externo crasso, reflexo, lato, duplicato.*

THE SLIGHTLY-STRIATED HELICINA. Shell small, thick, subglobose, spirally very finely striated; spire convex; last whorl of middle size; aperture small, rather angular; inner lip callous, columella aculeated, oblique; outer lip thick, reflected, broad, double.

GRAY. Zool. Journ., v.

Helicina sordida, King.

Hab. Cuba.

Species 95. (Fig. *a*, *b*, Mus. Brit.)

HELICINA BRAZILIENSIS. *Hel. testâ subtrochiformi, tenuis, aureâ, spiraliter striatâ; spirâ convexo-acuminatâ, anfractibus subrotundis; ultimo anfractu subcompresso-lato, rotundo; labio externo complanato, angusto, reflexo; columellâ trigonâ, aculeatâ.*

THE BRAZILIAN HELICINA. Shell subtrochiform, thin, gold-coloured, spirally striated; spire convex-acuminated, whorls rather rounded; last whorl subcompressed, broad, rounded; outer lip flattened, narrow, reflected; columella trigonal, aculeated.

GRAY. Zool. Journ., i. p. 66.

Hab. Brazil.

Species 96. (Mus. Brit.)

HELICINA GRATULATA. *Hel. testâ trochiformi, stramineâ, spirâ subacuminatâ, anfractibus convexiusculis; ultimo anfractu subcompresso, medio acutè carinato, suprà infràque convexo, columellâ tenui, obliquâ; labio externo tenuissimo.*

THE PLEASANT HELICINA. Shell trochiform, straw-coloured, spire subacuminated, whorls rather convex; last whorl rather compressed, acutely keeled in the middle, convex above and below, columella thin, oblique; outer lip very thin.

BLANDFORD.

Hab. Pegu.

A pretty little light keeled species.

Species 97. (Mus. Brit.)

HELICINA AURANTIO-VIRIDIS. *Hel. testâ globoso-subcompressâ; spirâ aurantiâ, parvâ, depressâ, ultimo anfractu globoso, in medio vividè viridi, propè suturam aurantio fasciato, labio columellari lato, excavato, arcuatim acuminato; labio externo rubro-aurantio, semicirculari.*

THE ORANGE-GREEN HELICINA. Shell globose, subcompressed; spire orange, small, depressed, last whorl globose, bright-green in the middle, banded with orange near the suture, columellar lip broad, excavated, acuminated in a curve; outer lip orange-red, half-circular.

SOWERBY. Thesaurus Conchyliorum. Helicina, 2nd Monograph, Sp. 199, f. 380.

Helicina viridis, Sowerby (1st Monograph).

Hab. Philippines?

This beautiful little shell being of a bright green colour in the body whorl has been mistaken by several collectors for Helicina viridis.

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102 a

102 b

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106 107

Sowerby del et lith

Vincent Brooks Day & Son, Imp

HELICINA.

PLATE XII.

Species 98. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CRASSILABRIS. *Hel. testâ crassâ, compressâ, angulatâ, pallidè rubescenti, apicè rubro, aperturâ et callo columellari aureâ; spirâ depressâ; ultimo anfractu compresso-angulato; aperturâ parvâ, callo columellari rotundo, columellâ parvâ, aculeatâ; labio externo crasso, haud reflexo, supernè depresso, medio obtusè angulato.*

THE THICK-LIPPED HELICINA. Shell thick, compressed, angular, pale red, apex red, aperture and columellar callus golden; spine depressed; last whorl compressed, angular; aperture small, columellar callus rounded, columella small, aculeated; outer lip thick, not reflected, depressed above, middle obtusely angular.

PHILIPPI. Zeitschrift für Malak., 1847.

Hab. Venezuela.

A curiously flattened, thick species.

Species 99. (Mus. Brit.)

HELICINA CHITTYANA. *Hel. testâ trochiformi, acuminatâ, liris distantibus spiralibus cinctâ, luteâ, viridi rubroque lineatâ et maculatâ; ultimo anfractu medio angulato, carinâ serratâ armato; aperturâ subrotundâ, labio externo albo, lato, expanso; columellâ rectiùsculâ, planulatâ.*

CHITTY'S HELICINA. Shell trochiform, acuminated, girt with distant spiral ridges, yellow, spotted and lineated with green and red; last whorl angular in the middle, armed with a serrated keel; aperture rather rounded; outer lip white, broad, expanded; columella rather straight, flattened.

PFEIFFER. Proc. Zool. Soc., 1857.

Hab. Cuba.

A more trochiform shell than *Helicina pulchella*, with the spiral striæ more distant and smooth.

Species 100. (Mus. Brit.)

HELICINA PETITIANA. *Hel. testâ subtrochiformi, spiraliter striatâ, striis rotundis, luteâ, ultimo anfractu rotundato; labio externo expanso, radiatim crenulato; columellâ angustâ, rectiùsculâ, ad terminum angulatâ.*

PETIT'S HELICINA. Shell rather trochiform, spirally striated, striæ rounded, yellow, last whorl rounded; outer lip expanded, radiately crenulated; columella narrow, rather straight, angular at the end.

ORBIGNY. Moll. Cub., i. p. 247.

Hab. Cuba.

The last whorl is more rounded than in the preceding, and the outer lip of the aperture is broad, flattened, expanded, and rayed with the rounded striæ of the body.

Species 101. (Mus. Sowerby.)

HELICINA TANKERVILLII. *Hel. testâ magnâ, luteâ, trochiformi, spiraliter serrato-striatâ; spirâ conicâ, anfractibus convexiùsculis, suprà maculis rubris distantibus ornatis; ultimo anfractu ventricosâ, in medio serrato-carinatâ, infrà carinam rubro lineatâ; labio externo expanso, radiatim crenulato; columellâ subtortuâ, complanatâ, cum labium externum confluenti.*

TANKERVILLE'S HELICINA. Shell large, yellow, trochiform, spirally serrato-striated; spire conical, whorls rather convex, ornamented with distant red spots above; last whorl ventricose, with a serrated keel in the middle, red-lined below the keel; outer lip expanded, radiately crenulated; columella rather tortuous, flattened, confluent with the outer lip.

GRAY. Zoological Journal, i. p. 250.

Hab. Jamaica.

This beautiful species was extremely rare in collections till within a comparatively recent date.

Species 102. (Fig. *a*, *b*, Mus. Brit.)

HELICINA OPIMA. *Hel. testâ subgloboso-trochiformi, spiraliter striatâ, albo, viridi maculatâ vel luteâ rubro maculatâ et fasciatâ; ultimo anfractu ventri-*

coso ; labio externo albo, angusto, planulato, columellâ rectiùsculâ.

THE FAT HELICINA. Shell subglobose-trochiform, spirally striated, white spotted with green, or yellow spotted with red; last whorl ventricose, outer lip white, narrow, flattened, columella rather straight.

SHUTTLEWORTH. Diagnosis, N. Moll., iii. p. 42.

Hab. Haiti.

More stout and ventricose than those of the same group previously described.

Species 103. (Fig. *a*, *b*, Mus. Brit.)

HELICINA PULCHELLA. *Hel. testâ trochiformi, angulatâ, spiraliter granoso-striatâ ; spirâ elevatâ, acuminatâ, luteâ, rubro tæniatâ ; ultimo anfractu infrà medium angulato, serrato-carinatâ ; labio externo expanso, radiatim crenulato ; columellâ planulatâ, cum labium externum confluenti.*

THE BEAUTIFUL HELICINA. Shell trochiform, angular, spirally granoso-striated; spire elevated, acuminated, yellow banded with red; last whorl angular below the middle, serrato-carinated; outer lip expanded, radiately crenulated, columella flattened, confluent with the outer lip.

GRAY. Zool. Joun., i. p. 64.

Helicina scitula, Wood.

Helicina Grayana, Pfeiffer.

Helicina dilatata, Poey.

Hab. Jamaica.

A well-known beautifully coloured and sculptured species.

Species 104. (Mus. Brit.)

HELICINA ROTELLA. *Hel. testâ albâ, compressâ, angulatâ ; spirâ depresso-conicâ, ultimo anfractu obtusè angulato ; labio externo paulò reflexo, in medio paulò producto ; columellâ parvâ, angustâ, leviter angulatâ, cum labium externum confluenti.*

THE ROTELLA HELICINA. Shell white, compressed, angular; spire depressed-conical, last whorl obtusely angular; outer lip a little reflected, a little produced in the middle; columella small, narrow, slightly angular, confluent with the outer lip.

SOWERBY. Thesaurus Conchyliorum. Helicina, 2nd Monog., No. 205, fig. 358.

Hab. New Hebrides.

Species 105. (Mus. Brit.)

HELICINA GRATIOSA. *Hel. testâ angulatâ, fuscâ ; spirâ conicâ, elevatâ, anfractibus convexiùsculis, ultimo anfractu medio obtusè angulato, infrà angulum convexiùsculo, post columellam spiraliter subexcavato ; aperturâ intùs rubro marginatâ ; labio externo angusto, reflexo ; columellâ parvâ, aculeatâ.*

THE GRATEFUL HELICINA. Shell angular, brown; spire conical, elevated, whorls rather convex, last whorl obtusely angular in the middle, rather convex, spirally a little excavated behind the columella; aperture red-bordered within; outer lip narrow, reflected; columella small, aculeated.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Admiralty Island.

Species 106. (Mus. Brit.)

HELICINA COSTATA. *Hel. testâ globoso-acuminatâ, solidâ, albâ, spiraliter striatâ ; spirâ elevatâ, acuminatâ ; ultimo anfractu rotundo, ventricoso ; aperturâ parvâ, intùs luteâ, labio externo incrassato, supernè declivi ; columellâ trigonâ, subplanulatâ.*

THE RIBBED HELICINA. Shell globose-acuminated, solid, white, spirally striated; spire elevated, acuminated; last whorl rounded, ventricose; aperture small, yellow within, outer lip thickened, sloped above; columella trigonal, a little flattened.

GRAY. Zool. Journ., i. p. 67, t. 6, fig. 8.

Hab. Jamaica.

Species 107. (Mus. Brit.)

HELICINA SEMILIRATA. *Hel. testâ subglobosâ, albâ, solidâ, supernè spiraliter crebri-liratâ, infrà lævigatâ ; spirâ acuminatâ, anfractibus convexiùsculis ; ultimo anfractu ventricoso, medio angulato, carinato ; labio externo planulato, paulò expanso ; columellâ planulatâ, angustâ, cum labium externum confluenti.*

THE HALF-RIDGED HELICINA. Shell subglobose, white, solid, spirally closely-ridged above, smooth beneath; spire acuminated, whorls rather convex; last whorl ventricose, angular in the middle, keeled; outer lip flattened, a little expanded; columella flattened, narrow, confluent with the outer lip.

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. Venezuela.

107 a.

110 a.

110 b.

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111 a.

111 b.

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107 b.

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE XIII.

Species 107. (Fig. *a*, *b*, Mus. Brit.)

HELICINA ALATA. *Hel. testâ subglobosâ, lineis ciliatis, distanter striatâ, straminea, apice rubescenti; spirâ subconicâ; aperturâ paulò disjunctâ, subrotundâ, columellâ rectiusculâ, callo ventrali subtrigono, labio externo reflexo, apud columellam sinuatim emarginato; operculo utrinque in cuneam acutam producto.*

THE WINGED HELICINA. Shell subglobose, distantly striated with ciliated lines, straw-coloured, reddish at the apex; spire rather conical, aperture a little disjoined, rather round, columella rather straight, ventral callus subtrigonal, outer lip reflected, sinuously emarginated close to the columella; operculum produced at each end into a sharp wedge.

MENKE. Synopsis. —— ? Thesaurus Conchyliorum, Helicina, fig. 65, 66.

Hab. Cordova, Vera Cruz.

There is a peculiarity in this and the two following species which would almost justify a generic or subgeneric division. The operculum has a projecting point at each end fitting into a notch in the outer lip close to the columella.

Species 108. (Fig. *a*, *b*, Mus. Brit.)

HELICINA PANNUCEA. *Hel. testâ globosâ, pallidissimè fulvâ, lævigatâ, epidermide rugoso, creberrimè ciliato induto, apice brevi, compressâ; aperturâ intùs subaureâ, labio externo utrinque emarginato, vix reflexo, callo ventrali subrotundato; operculo utrinque in cuneam producto.*

THE RAGGED HELICINA. Shell globose, very pale fawn, smooth, covered with a rough, very closely ciliated epidermis, apex short, rather compressed; aperture slightly golden within, outer lip emarginated at both ends, scarcely reflected, ventral callus slightly rounded; operculum produced into a wedge at each end.

MORELET. —— ? Sowerby's Thesaurus, Helicina, fig. 68, 69.

Hab. Vera Cruz.

More globose than the preceding, smooth without the epidermis. The latter is thick, brown, and closely ciliated.

Species 109. (Mus. Brit.)

HELICINA NICHOLETTI. *Hel. testâ magnâ, subangulatâ, rubescenti, lineis impressis, ciliatis creberrimè spiraliter striatâ; spirâ depresso-conicâ; callo ventrali spiraliter tortuo; aperturâ magnâ; operculo utrinque producto, cuneato.*

NICHOLETTI'S HELICINA. Shell large, rather angular, reddish, closely spirally striated with impressed hairy lines; spire depressed, conical; ventral callus spirally tortuous; aperture large; operculum produced, cuneate at each end.

SHUTTLEWORTH. —— ? Thesaurus Conchyliorum, Helicina, fig. 67.

Hab. Vera Cruz.

The largest and most characteristic of the three species from the same locality possessing the peculiarity mentioned at Species 107.

Species 110. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CHIAPPENSIS. *Hel. testâ globoso-conicâ, lævigatâ, flavidâ, nonnunquam versùs apicem roseâ; aperturâ subtrigonâ, labio exterpo albo, reflexo; columellâ subtrigonâ, parvâ; apice elevato.*

THE CHIAPPA HELICINA. Shell globose-conical, smooth, yellowish, sometimes rosy towards the apex;

aperture subtrigonal, outer lip white, reflected; columella subtrigonal, small; apex elevated.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Mexico.

A more solid shell than *Helicina Heloisæ*, with a more elevated spire.

Species 111. (Fig. *a*, *b*, Mus. Brit.)

HELICINA HELOISÆ. *Hel. testâ globoso-conicâ, flavidâ, nonnunquam supernè dimidiatim purpureo fasciatâ; spirâ conicâ, anfractibus distinctis, rotundis; aperturâ parvâ, labio externo reflexo, tenui, columellâ crassiùsculâ, latâ, subarcuatâ.*

HELOISE'S HELCINA. Shell globosely-conical, yellow, sometimes banded with brown half way above; spire conical, with distinct rounded whorls; aperture small, outer lip reflected, thin, columella rather thick, broad, rather arched.

SALLÉ. Proc. Zool. Soc., 1856.

Hab. Mexico.

Species 112. (Mus. Brit.)

HELICINA LINDENI. *Hel. testâ tenui, subtrochiformi, punctisque nebulosis variegatâ, vel albâ; apice mucronato, anfractibus quinque; aperturâ subauriform, intùs vel ad marginem aureâ, labio externo tenuiter reflexo; columellâ breviùsculâ, angulatâ.*

LINDEN'S HELICINA. Shell thin, rather trochiform, obscurely narrowed, ash-brown variegated above with clouded spots and dots, or white; apex mucronate, whorls five; aperture subauriform, golden within or at the margin; outer lip thinly reflected; columella rather short, angular.

PFEIFFER. Zeitschrift für Malacologia, 1847, p. 126.

Hab. Mexico.

Species 113. (Mus. Brit.)

HELICINA PELLUCIDA. *Hel. testâ parvâ, subconicâ, pellucidâ, subviridi; spirâ elevatâ, anfractibus quatuor, parvis; ultimo anfractu rotundo; aperturâ subtrigonâ, columellâ rectiùsculâ, brevi; labio externo tenui reflexo.*

THE PELLUCID HELICINA. Shell small, subconical, pellucid, rather green; spire elevated, whorls four, small, last whorl rounded; aperture subtrigonal; columella rather straight, short; outer lip thin, reflected.

SOWERBY. Thes. Conch. (1st monograph), fig. 40.

114 115

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a b

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a b

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a b

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a b

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a b

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

HELICINA.

PLATE XIV.

Species 114. (Mus. Brit.)

HELICINA LACINIOSA. *Hel. testâ subglobosâ, pallidè lacteo-fulvidâ, spirâ conicâ, acuminatâ; ultimo anfractu angustiùsculo, rotundo; aperturâ majusculâ, semilunari; columellâ rectâ, angustâ, acicu[illegible]latâ, labio externo semicirculari, tenui, reflexo, ad columellam vix emarginato.*

THE HEMMED HELICINA. Shell subglobose, pale milky-fawn, spire conical, acuminated; last whorl rather narrow, rounded; aperture rather large, semilunar; columella straight, narrow, pointed, outer lip semicircular, thin, reflected, very slightly notched at the columella.

MIGHÆLS. Proc. Bost. Soc., 1845.

Hab. Sandwich Islands.

Species 115. (Mus. Brit.)

HELICINA DEPRESSA. *Hel. testâ parvâ, albâ, utrinque compressâ; spirâ parvâ, depressâ; ultimo anfractu lato; aperturâ latâ, brevi, labio externo supernè sinuatim depresso, infrà apud columellam subemarginato, margine angusto, rotundo.*

THE DEPRESSED HELICINA. Shell small, white, compressed on each side; spire small, depressed; the last whorl broad; aperture broad, short, outer lip sinuously depressed above, slightly notched below against the columella, margin narrow, rounded.

GRAY. Zoological Journal, vol. i. p. 69.

Hab. Jamaica.

Species 116. (Mus. Brit.)

HELICINA LINEATA. *Hel. testâ parvâ, valdè depressâ, medio angulatâ, pallidè fulvâ, spiraliter sulcatâ; spirâ brevissimâ; callo ventrali rotundato, columellâ parvâ, aculeatâ, labio externo suprà infràque in dentem tumidam incrassatum.*

THE LINEATED HELICINA. Shell small, much depressed, angular in the middle, pale fulvous, spirally grooved; spire very short; ventral callus rounded, columella small, aculeated, outer lip thickened above and below into a thickened tooth.

C. B. ADAMS. Proc. Bost. Soc.

Hab. Jamaica.

Species 117. (Mus. Brit.)

HELICINA SEMISTRIATA. *Hel. testâ minutâ, depressâ, angulatâ, supernè dimiatim spiraliter depressâ, infrà lævigatâ; spirâ brevissimâ; aperturâ subtrigonâ; labio externo propè columellam infrà tumido.*

THE HALF-STRIATED HELICINA. Shell minute, depressed, angular, spirally sinuously depressed, smooth below; spire very short; aperture subtrigonal; outer lip swelled near the columella below.

SOWERBY. Thesaurus Conchyliorum, Helicina, Sp. 54, fig. 86.

Hab. ——?

A curious little lenticular species striated or grooved only on the upper half. Otherwise resembling Species 116.

Species 118. (Fig. *a*, *b*, Mus. Brit.)

HELICINIA VINOSA. *Hel. testâ minutâ, depressâ, obliquè sulcatâ, pallidè vinoso-fulvâ; aperturâ parvâ, supernè depressâ; labio externo tenui, propè columellam infrà tumido.*

THE VINOUS HELICINA. Shell minute, depressed, obliquely sulcated, pale vinous brown; aperture small, depressed above; outer lip thin, tumid near the columella below.

SHUTTLEWORTH. ——?

Hab. Porto Rico.

Species 119. (Fig. *a*, *b*, Mus. Brit.)

HELICINIA PLICATULA. *Hel. testâ parvâ, pallidè fulvâ, subcompressâ, concentricè obliquè liratâ ; callo columellari expanso, rotundo ; aperturâ parvâ, labio externo suprà infràque depresso, sinuatim tumidiùsculo.*

THE PLAITED HELICINA. Shell small, pale fulvous, subcompressed, concentrically obliquely ridged; columellar callus expanded, rounded ; aperture small, outer lip depressed and sinuously rather tumid above and below.

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. Martinique.

Species 120. (Fig. *a*, *b*, Mus. Brit.)

HELICINIA RUGOSA. *Hel. testâ minutâ, valdè depressâ, pallidè fulvâ, liris obliquis, crebris, sculptâ ; aperturâ parvâ, labio externo suprà infràque dèpresso, sinuatim tumido, supernè declivi.*

THE RUGOSE HELICINA. Shell minute, much depressed, pale fulvous, sculptured with oblique, close ridges; aperture small, outer lip depressed, and sinuously tumid above and below, the upper part sloped.

PFEIFFER. Weigman Archives.

Hab. Trinidad.

Species 121. (Fig. *a*, *b*, Mus. Brit.)

HELICINIA LIRATA. *Hel. testâ minutâ, acutè angulatâ, depressâ, spiraliter sulcatâ, medio carinatâ, fulvo-rubescenti ; callo ventrali tenui, subplanulato, aperturâ trigonâ, labio externo suprà medium angulato, suprà infràque propè junctura sinuatim tumidiùsculo.*

THE RIDGED HELICINA. Shell minute, acutely angular, depressed, spirally grooved, keeled in the middle, reddish-fulvous; ventral callus thin, rather flattened, aperture trigonal, outer lip angular above the middle, rather sinuously tumid above and below near the juncture.

PFEFFER. Zeitschrift für Mal., 1847.

Hab. Yucatan.

More angular and depressed than *Hel. unidentata.*

Species 122. (Mus. Brit.)

HELICINIA UNIDENTATA. *Hel. testâ minutâ, suprà subconico-depressâ, infrà subrotundâ, medio angulatâ, subcarinatâ, spiraliter sulcatâ ; aperturâ subtrigonâ, labio externo, rotundo, angusto, infrà propè columellam unidentato.*

THE SINGLE-TOOTHED HELICINA. Shell minute, conically depressed above, a little rounded beneath, angular, subcarinated in the middle, spirally grooved; aperture subtrigonal, outer lip rounded, narrow, with a single tooth on the lower part near the columella.

PFEFFER. Proc. Zool. Soc., 1848.

Hab. Honduras.

Species 123. (Mus. Brit.)

HELICINIA INÆQUALIS. *Hel. testâ parvâ, trochiformi, flavidâ, spiraliter tenuiter striatâ ; spirâ elevatâ, apice mucronato ; ultimo anfractu alto, medio angulato, subcarinato ; aperturâ parvâ, subtrigonâ, labio externo albo, reflexo, medio obtusè cuneato, suprà declivi, depresso, acutè unidentato, infrà acutissimè unidentato, cum columellâ confluenti.*

THE UNEQUAL HELICINA. Shell small, trochiform, yellowish, spirally finely striated; spire elevated, apex mucronate, last whorl raised, angular in the middle, subcarinate; aperture small, subtrigonal, outer lip white, reflected, obtusely cuneate in the middle, sloped above, depressed, with a single sharp tooth, very sharply unidentate below, confluent with the columella

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. Jamaica.

Resembling the common species *H. aureola*, but more narrow and elevated.

Species 124. (Fig. *a*, *b*, Mus. Brit.)

HELICINIA AUREOLA. *Hel. testâ subglobosâ, aureâ, vel subroseâ, obscurè angulatâ, spiraliter tenuiter sulcatâ ; spirâ lateraliter convexâ, apice mucronato ; aperturâ contractâ, labio externo supernè depresso, unidentato, suprà medium angulato, infrà acutè unidentato, cum columellâ confluenti.*

THE GOLDEN HELICINA. Shell subglobose, golden or reddish, obscurely angular, spirally finely grooved; spire laterally convex, apex mucronate; aperture contracted, outer lip depressed, unidentate above, angular above the middle, sharply unidentate below, confluent with the columella.

FERRUSAC. —— ?

Hab. Jamaica.

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Sowerby del et lith

Vincent Brooks Day & Son, Imp.

HELICINA.

PLATE XV.

Species 125. (Mus. Brit.)

HELICINA TRIDENS. *Hel. testâ minutâ, angulatâ, suprà tenuiter spiraliter striatâ, carinâ serratâ medio cinctâ; spirâ conicâ, elevatâ; aperturâ trigonâ, contractâ; labio externo medio angulato, suprà, infrà, medioque acutè unidentato; columellâ cum labio externo confluenti.*

THE THREE-TOOTHED HELICINA. Shell minute, angular, spirally finely striated above, belted in the middle with a serrated keel; spire conical, elevated; aperture trigonal, contracted; outer lip angular in the middle, sharply single-toothed; columella confluent with the outer lip.

SHUTTLEWORTH. ——?

Hab. Jamaica.

Species 126. (Mus. Brit.)

HELICINA UNDULATA. *Hel. testâ globosâ, fusco-purpurescenti variegatâ; spiraliter undulatim striatâ, supernè lateraliter convexâ, medio serrato-carinatâ; infrà rotundatâ; aperturâ contractâ; labio externo albo, supernè depresso, suprà infràque unidentato.*

THE WAVED HELICINA. Shell globose, variegated with purplish-brown, spirally wavily striated, laterally convex above, with a serrated keel in the middle, rounded below; aperture contracted; outer lip white, depressed above, with a single tooth above and below.

PFEIFFER. Malak., Bl. viii.

Hab. Jamaica.

Very closely connected with *Helicina aureola*, but differing in having the spiral striæ undulated.

Species 127. (Mus. Brit.)

HELICINA ELEGANTULA. *Hel. parvâ, fuscâ, trochiformi, lævi; spirâ elevatâ, anfractibus quatuor aut quinque, distinctis, infrà medium rotundatis, apice acuminato; anfractu ultimo subdepresso, obtusè angulato; aperturâ parvâ, subtrigonâ, labio externo tenui, reflexo.*

THE ELEGANT LITTLE HELICINA. Shell small, brown, trochiform, smooth; spire elevated, whorls four or five, distinct, rounded below the middle, apex acuminated; last whorl rather depressed, obtusely angular, aperture smooth, subtrigonal, outer lip thin, reflected.

PFEIFFER. Zeitschrift f. Malak., 1850, p. 76.

Hab. Haiti.

Species 128. (Mus. Brit.)

HELICINA TROCHLEA. *Hel. testâ minutâ, trochiformi, subdepressâ, medio angulatâ, carinatâ, suprà carinam spiraliter cirratâ, fusco-nigrescenti fasciatâ; apice rubro; aperturâ subtrigonâ, labio externo tenui.*

THE WINDLASS HELICINA. Shell minute, trochiform, subdepressed, angular, carinated in the middle, spirally ridged above the keel, banded with blackish-brown, apex red; aperture subtrigonal, outer lip thin.

GOULD. Proc. Bost. Soc., 1847, p. 202.

Hab. Isl. Aurora.

Species 129. (Mus. Brit.)

HELICINA TRICARINATA. *Hel. testâ parvâ, trochiformi, luteâ, spiraliter liris cariniformibus, quarum tribus medianis majoribus cincta; spirâ elevatâ, anfractibus carinatis; aperturâ intùs aureâ, columellâ parvâ, albâ, labio externo albo, angusto.*

THE THREE-KEELED HELICINA. Shell small, trochiform, yellowish, spirally girt with keel-like ridges of which the three middle ones are the larger; spire elevated, whorls keeled; aperture golden within, columella small, white, outer lip white, narrow.

SOWERBY. Thes. Conch., 2nd Monograph, species 73.

Hab. ——?

Species 130. (Mus. Brit.)

HELICINA RUBICUNDA. *Hel. testâ trochiformi, fulvo-rubescenti, acuminatâ, spiraliter crebriliratâ, spirâ elevatâ, mucronatâ; aperturâ subtrigonâ, columellâ rectâ, angustâ, acuminatâ, labio externo tenuiter reflexo.*

THE RUBICUND HELICINA. Shell trochiform, reddish-brown, acuminated, spirally closely ribbed, spire elevated, mucronate, aperture subtrigonal, columella straight, narrow, acuminated, outer lip thinly reflected.

GUNDLACH. Pfeiffer, Malak., Bl. iv. 1857.

Hab. Cuba.

Species 131. (Mus. Brit.)

HELICINA RUPESTRIS. *Hel. testâ parvâ, subaureâ, trochiformi, spiraliter striatâ; spirâ elevatâ, mucronatâ, apice aculeato, ultimo anfractu depresso, subrotundo; aperturâ subtrigonâ, columellâ angustâ, obliquâ; labio externo vix reflexo.*

THE ROCK HELICINA. Shell small, rather golden, trochiform, spirally striated, spire elevated, mucronate, apex aculeated, last whorl depressed, rather rounded; aperture subtrigonal, columella narrow, oblique, outer lip very little reflected.

PFEIFFER. Weigman's Archives f. Nat., 1839.

Hab. Cuba.

This little shell much resembles *Helicina rubicunda*, but the last whorl is more depressed and the outer lip is much narrower.

Species 132. (Mus. Brit.)

HELICINA LITTORICOLA. *Hel. testâ parvâ, crassâ, globosâ, albidâ, spiraliter striatâ; spirâ elevatâ, apice mucronato, ultimo anfractu rotundo; aperturâ parvâ, intùs aureâ, labio externo supernè declivi, depresso, obliquè producto.*

THE SHORE HELICINA. Shell small, thick, globose, whitish, spirally striated; spire elevated, apex mucronate, last whorl rounded; aperture small, golden within, outer lip sloped, depressed, obliquely produced above.

GUNDLACH. Pfeiffer Malak., Bl. vii. 1860.

Hab. Cuba.

A stout little white-ribbed shell.

Species 133. (Mus. Brit.)

HELICINA ELEGANS. *Hel. testâ eleganter trochiformi, fulvâ, lævi, angulatâ; spirâ elevatâ, acuminatâ; anfractu ultimo subdepresso, medio angulato; aperturâ intùs subaureâ, subtrigonâ, columellâ albâ, angustissimâ, obliquâ; labio externo paulò reflexo.*

THE ELEGANT HELICINA. Shell elegantly trochiform, fulvous, smooth, angular; spire elevated, acuminated; last whorl a little depressed, angular in the middle; aperture rather golden within, subtrigonal columella white, very narrow, oblique; outer lip a little reflected.

D'ORBIGNY (Alcide). Mollusques de Cuba.

Helicina conica, Pfeiffer.

Hab. Cuba.

Species 134. (Mus. Brit.)

HELICINA CALLOSA. *Hel. testâ fulvâ, parvâ, trochiformi, lævigatâ, angulatâ; spirâ elevatâ, conicâ, apice acuminato; ultimo anfractu medio angulato, suprà columellam callo rotundo, producto, albo incrassato, aperturâ trigonâ, labio externo tenuiter reflexo.*

THE CALLOUS HELICINA. Shell fulvous, small, trochiform smooth, angular; spire elevated, conical, apex acuminated; last whorl angular in the middle, thickened by a rounded, produced, white callus above the columella, aperture trigonal, outer lip thinly reflected.

POEY. Mem. 1, p. 432, T. 33, f. 13–15.

Hab. Cuba.

Distinguished from the preceding and other trochiform small species by the projecting callus on the aperture edge of the body whorl.

Species 135. (Mus. Brit.)

HELICINA PETROSA. *Hel. testâ parvâ, trochiformi, aureâ, spiraliter tenuiter striatâ; spirâ mucronatâ, anfractibus paulò convexis; ultimo anfractu medio subangulato; aperturâ subtrigonâ, columellâ tenui, obliquâ; labio externo tenui, leviter reflexo.*

THE STONY HELICINA. Shell small, trochiform, golden-yellow, spirally finely striated; spire mucronate, whorls rather convex; last whorl rather angular in the middle; aperture subtrigonal, columella thin, oblique; outer lip thin, gently reflected.

GUNDLACH. Pfeiffer Malak., iv. 1857.

Hab. Cuba.

Species 136. (Mus. Brit.)

HELICINA CAPILLACEA. *Hel. testâ parvâ, trochiformi, fuscâ, spiraliter striis setosis cinctâ; spirâ conicâ, moderatè elevatâ; ultimo anfractu subdepresso, medio subangulato; aperturâ subtrigonâ, labio externo tenui.*

THE HAIRY HELICINA. Shell small, trochiform, brown, spirally girt with hairy striæ; spire conical, moderately elevated; last whorl rather depressed, slightly angular in the middle; aperture subtrigonal, outer lip thin.

PFEIFFER. Malak., Bl. iv. 1857.

Hab. Cuba.

137

138

139 a

139 b

140

141

142

143

144 a

144 b

145

Sowerby del et lith

Vincent Brooks Day & Son Imp

HELICINA.

PLATE XVI.

Species, 137. (Mus. Brit.)

HELICINA ELONGATA. *Hel. testâ pyramidatâ, lævigatâ, pallidè fulvâ, trochiformi; spirâ elevatâ, acuminatâ, anfractibus ad latere rectis; ultimo anfractu medio angulato; aperturâ subtrigonâ, columellâ rectiùsculâ, supernè latiùsculâ, infrà attenuatâ; labio externo medio acutè angulato.*

THE ELONGATED HELICINA. Shell pyramidal, smooth, pale fulvous, trochiform; spire elevated, acuminated, whorls straight at the sides; last whorl angular in the middle; aperture subtrigonal, columella rather straight, rather wide above, tapering below; outer lip sharply angular in the middle.

D'ORBIGNY (Alcide). Sowerby Thes. Conch., 2nd Monog. Sp. 93, fig. 158.

Hab. Cuba.

A very pyramidal species with straight-sided whorls.

Species 138. (Mus. Brit.)

HELICINA TROCHULINA. *Hel. testâ parvâ, trochiformi, albidâ, lævigatâ; spirâ elevatâ, acuminatâ; ultimo anfractu subrotundo; aperturâ subtrigonâ; columellâ arcuatâ, labio externo tenui.*

THE LITTLE WINDLASS HELICINA. Shell small, trochiform, whitish, smooth; spire elevated, acuminated, last whorl rather rounded; aperture subtrigonal; columella arched; outer lip thin.

D'ORBIGNY (Alcide). Moll. Isl. Cuba, p. 249.

Hab. Cuba.

Smaller, less pyramidal and less angular than the preceding.

Species 139. (Fig. *a*, *b*, Mus. Brit.)

HELICINA COLUMBIANA. *Hel. testâ globoso-conicâ, solidiùsculâ, fusco-rubescenti, vel griseo, vel pallidissimè aureo in fasciis latis cinctâ; spirâ conicâ, apice acuminato, aperturâ semilunari, labio externo expanso, reflexo, columellâ parvâ, subtrigonâ.*

THE COLUMBIAN HELICINA. Shell globosely conical, rather solid, belted with reddish-brown, or grey, or very pale yellow in broad bands; spire conical, apex acuminated, aperture semilunar, outer lip expanded, reflected, columella small, subtrigonal.

PHILIPPI. Pfff. Monog., Sp. 186.

Hab. West Columbia.

Species 140. (Mus. Brit.)

HELICINA MERDIGERA. *Hel. testâ fulvâ, subglobosâ, nonnunquam subtùs flavidâ; spirâ elevatâ, anfractibus sex, rotundis, distinctis; ultimo anfractu subgloboso, breviùsculo; aperturâ parvâ; labio externo paulò reflexo.*

THE UNCLEAN HELICINA. Shell fulvous, subglobose, sometimes yellow beneath; spire elevated, whorls six, rounded, distant; last whorl subglobose, rather short; aperture small, outer lip a little reflected.

SALLÉ. Proc. Zool. Soc., 1855.

Hab. Mexico.

Species 141. (Fig. *a*, *b*, Mus. Brit.)

HELICINA PARAENSIS. *Hel. testâ parvâ, pallidè flavidâ, conico-globosâ, tenui, lævigatâ; spirâ conicâ, anfractibus paucis, paulò convexis; aperturâ parvâ, trapezoideâ, labio externo tenuiter reflexo.*

THE PARA HELICINA. Shell small, pale yellow, globose-conical, thin, smooth; spire conical, whorls few, a little convex; aperture small, trapezoidal, outer lip thinly reflected.

PFEIFFER. Proc. Zool. Soc., 1859.

Hab. Para, Brazil.

Species 142. (Fig. *a*, *b*, Mus. Brit.)

HELICINA ALTA. *Hel. testâ parvâ, globoso-subattenuatâ, fuscâ, vel flavido-subviridi; spirâ elevatâ, subconicâ; ultimo anfractu breviùsculo, rotundo;*

aperturâ subtrigonâ, labio externo paulò reflexo; columellâ parvâ.

THE ELEVATED HELICINA. Shell small, globosely subattenuated, brown, or greenish-yellow; spire elevated, rather conical; last whorl rather short, rounded; aperture subtrigonal, outer lip a little reflected, columella small.

SOWERBY. Thesaurus Conchyliorum, Helicina, 2nd Monograph, Sp. 151, figs. 251, 252.

Hab. Porto Rico.

Species 143. (Mus. Brit.)

HELICINA CORDILLERÆ. *Hel. testâ globoso-subdepressâ, tenui, lævigatâ, pallidè fulvâ, medio anfractuum fasciistribus spiralibus rubris tæniatâ; spirâ acuminatâ, ultimo anfractu subdepressâ; aperturâ obliquè semilunari, columellâ brevissimâ, callo columellari expanso, labio externo reflexo, planulato.*

THE CORDILLERA HELICINA. Shell globose-subdepressed, thin, smooth, pale fulvous, striped with three spiral red bands; spire acuminated, last whorl subdepressed; aperture obliquely semilunar, columella very short, columellar callus expanded, outer lip reflected.

SALLÉ. Pffr. Proc. Zool. Soc., 1856.

Hab. Cordillera, Mexico.

Species 144. (Mus. Brit.)

HELICINA OWENIANA. *Hel. testâ globoso-conicâ, solidâ, lævigatâ, fulvâ, nonnunquam supernè dimidiatim rubrâ; spirâ conicâ, elevatâ; anfractibus lateraliter rectiùsculis; aperturâ parvâ, pyriformi, planulatâ, auranteo-rubrâ; columellâ supernè subcomplanatâ.*

OWEN'S HELICINA. Shell globose-conical, solid, smooth, fulvous, the upper half sometimes red; spire conical, elevated; whorls rather straight at the sides; aperture small, pyriform, flattened, orange-red; columella rather flattened above.

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. Mexico.

Among the globosely conical species distinguished by its orange-red rim.

Species 145. (Fig. *a*, *b*, Mus. Brit.)

HELICINA FLAVIDA. *Hel. testâ subglobosâ, lævigatâ, flavidâ, lineâ rubrâ medio anfractuum ornatâ; spirâ obtusiùsculâ; aperturâ parvâ, subtrigonâ; columellâ albâ, angustâ, cum labium externum confluentis; labio externo angustè reflexo.*

THE YELLOW HELICINA. Shell subglobose, smooth, yellowish, ornamented with a red line in the middle of the whorls; spire rather obtuse; aperture small, subtrigonal; columella white, narrow, confluent with the outer lip; outer lip narrowly reflected.

MENKE. Syn. Ed. II., p. 79.

Helicinia trossula, Moricand. (var. ?)

Hab. Guatemala.

146

147 a

147 b

148

149 a

149 b

a b

150

151

152

a b

153

HELICINA.

PLATE XVII.

Species 146. (Mus. Brit.)

HELICINA CONTINUA. *Hel. testâ parvâ, flavidâ, lævigatâ, trochiformi, elevatâ, spirâ convexo-conicâ; aperturâ parvâ, labio externo angusto, tenui.*

THE CONTINUOUS HELICINA. Shell small, yellowish, smooth, trochiform, elevated, spire convex-conical; aperture small, outer lip narrow, thin.

GUNDLACH. Poey, Mem. Cub., vol. ii. p. 5.

Hab. Cuba.

Species 147. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SPECTABILIS. *Hel. testâ globoso-subtrochiformi, lævigatâ, flavidâ vel rubrâ, in medio anfractuum lineâ rubrâ cinctâ; anfractibus convexis, ultimo magno, aperturâ semilunari, columellâ minutâ, labio externo tenui, reflexo.*

THE PRESENTABLE HELICINA. Shell globose-subtrochiform, smooth, yellowish or red, belted with a red line in the middle of the whorls; whorls convex, the last large, aperture semilunar, columella very small, outer lip thin, reflected.

GUNDLACH. Poey, Mem. Cub., vol. ii. p. 5.

Hab. Cuba.

Species 148. (Mus. Brit.)

HELICINA REMOTA. *Hel. testâ rubescenti, subtrochiformi, spiraliter obscurè liratâ, medio anfractûs ultimi obscurè bicarinatâ; spirâ breviter conicâ, acuminatâ; aperturâ latâ, intùs aureâ; labio externo reflexo expanso, ad medium paulò producto, subangulato.*

THE REMOVED HELICINA. Shell reddish, rather trochiform, spirally obscure ribbed, obscurely bicarinated in the middle of the last whorl; spire shortly conical, acuminated; aperture broad, golden within outer lip reflected; expanded, a little produced and slightly angular in the middle.

POEY. Mem. Cub., vol. ii. p. 27, t. 8, f. 26.

Hab. Cuba.

This species has not the hollow columella of *Hel. excavata.*

Species 149. (Fig. *a*, *b*. Mus. Brit.)

HELICINA ZEPHYRINA. *Hel. testâ globoso-subtrochiformi, lævigatâ, rubrâ vel flavidâ, medio anfractuum et ad suturam albo fasciatâ; aperturâ semilunari, columellâ ad juncturam incisâ; labio externo albo, tenui, expanso.*

THE ZEPHYR HELICINA. Shell globose-subtrochiform, smooth, red or yellow banded with white in the middle of the whorls and at the suture; aperture semilunar, columella incised at the juncture; outer lip white, thin, expanded.

DUCLOS. Guerin. Mag. Nat. Hist.

Helicina tropica? Chemnitz.

Helicina ambeliana, Sowb. (first monograph).

Hab. Texas.

Species 150. (Fig. *a*, *b*, Mus. Brit.)

HELICINA TURBINELLA. *Hel. testâ minutâ, pallidè flavidâ, compresso-trochiformi, medio anfractûs ultimi obtusè angulatâ, spirâ depresso-conicâ; aperturâ parvâ, subquadratâ, labio externo rotundo, medio angulato, ad juncturam cum columellâ confluenti.*

THE LITTLE-TOP HELICINA. Shell minute, pale yellowish, compressed trochiform, obtusely angular in the middle of the last whorl, spire depressed-conical; aperture small, subquadrate, outer lip rounded, angular in the middle, confluent with the columella at the juncture.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. Sydney.

Species 151. (Fig. *a*, Mus. Brit.) See fig b, in Pl. XIX.

HELICINA CORDILLERÆ. *Hel. testâ depresso-subtrochiformi, rubescenti, vel pallidè fulvâ, medio anfractuum lineis rubris tribus spiraliter cinctâ; anfractu ultimo lato, depresso; aperturâ nonnunquam aureâ; labio externo expanso, albo, reflexo.*

THE CORDILLERAS HELICINA. Shell depressed-subtrochiform, reddish or pale fulvous, spirally girt with thinner red lines in the middle of the whorls; last whorl wide, depressed; aperture sometimes golden; outer lip expanded, white, reflected.

SALLÉ. Proc. Zool. Soc., 1856.

Hab. Mexico.

It may be known by the depressed form of the last whorl. Having inadvertently filled up the plate, we are obliged to defer the banded variety to Plate XIX.

Species 152. (Mus. Brit.)

HELICINA FUNCKII. *Hel. testâ subdepressâ, lævigatâ, supernè rubro-maculatâ, infrà aureâ, medio anfractûs ultimi angulatâ; spirâ depresso-conicâ; labio externo albo, expanso, reflexo, medio angulato.*

FUNCK'S HELIX. Shell subdepressed, smooth, spotted above with red, golden beneath, angular in the middle of the last whorl; spire depressed-conical; outer lip white, expanded, reflected, angular in the middle.

PFEIFFER. Proc. Zool. Soc., 1848.

Helicina purpureo-flava, Morelet.

Hab. New Granada.

The colouring on the upper part of the shell presents a contrast to that on the lower part.

Species 153. (Fig. *a*, *b*, Mus. Brit.)

HELICINA POLYCHROA. *Hel. testâ parvâ, globosâ, aureâ, in medio anfractuum et suprà columellam spiraliter rubro lineatâ; spirâ convexo-conicâ; aperturâ parvâ, subtrigonâ; columellâ minutâ, trigonâ, labio externo angusto, albo, reflexo.*

THE MANY-COLOURED HELICINA. Shell small, globose, golden, spirally red-lined in the middle of the whorls and above the columella; spire convex-conical; aperture small, subtrigonal; columella minute, trigonal, outer lip narrow, white reflected.

PFEIFFER. MS. Cum. Col.

Hab. Cuba.

154

155a

155b

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158

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160a

160b

161

Sowerby. del et lith.

Vincent Brooks Day & Son, Imp.

HELICINA.

PLATE XVIII.

Species 154. (Mus. Brit.)

HELICINA GLOBULOSA. *Hel. testâ globosâ, lævigatâ, fasciâ latâ, lineis duabus rubris marginatâ suprà medium et infrà fasciâ angustâ rubrâ infrà medium tæniatâ; spirâ brevi, acuminatâ, ultimo anfractu subdepresso, rotundo, aperturâ subrotundâ, labio externo angusto, albo, columellâ parvâ, cum labium externum confluenti.*

THE GLOBULAR HELICINA. Shell globose, smooth, rib-banded above the middle by a broad band edged with two red lines and below the middle by a narrow red band; spire short, acuminated, last whorl a little depressed, rounded, aperture rather rounded, outer lip narrow, white, columella small, confluent with the outer lip.

ORBIGNY. Moll. Cub., p. 254.

Hab. Cuba.

One variety is dark greyish and the other red on the upper part of the whorls and on the spine.

Species 155. (Fig. *a*, *b*, Mus. Brit.)

HELICINA ROSTRATA. *Hel. testâ globoso-trochiformi, suprà et infrà medium rubro, vel aurantio tæniatâ; spirâ brevi, conicâ, ultimo anfractu magno, medio angulato, obscurè carinatâ; columellâ subplanulatâ, confluentâ, labio externo lato, reflexo, ad medium in lobam linguiformem producto.*

THE BEAKED HELICINA. Shell globose-trochiform, banded with red or orange above and below the middle; spire short, conical, last whorl large, angular in the middle, obscurely keeled; columella a little flattened, confluent, outer lip broad, produced into a tongue-shaped lobe at the middle.

MORELET. Test. Nov., vol ii. p. 17.

Helicina Salvini, Tristram.

Hab. Vera Paz.

Species 156. (Mus. Brit.)

HELICINA VERNALIS. *Hel. testâ subglobosâ, aurantiâ, infrà medium rubro unifasciatâ; columellâ parvâ, albâ; labio externo planulato, reflexo.*

THE VERNAL HELICINA. Shell subglobose, orange with a single red band below the middle; columella small, white; outer lip flattened, reflected.

MORELET. Test. Nov. Cub., vol. i. p. 20.

Hab. Cuba.

Species 157. (Mus. Brit.)

HELICINA DENTICULATA. *Hel. testâ, globoso-subtrochiformi, pallidâ, suprà et infrà medium aurantio tæniatâ, aperturâ intùs aureâ; ultimo anfractu medio obscurè carinato; spirâ acuminatâ, suturâ denticulatâ; labio externo planulato, reflexo, in lobam linguiformem ad medium producto.*

THE DENTICULATED HELICINA. Shell globose-subtrochiform, pale, banded with orange above and below the middle; aperture golden within; last whorl obscurely keeled in the middle; spire acuminated, suture denticulated; outer lip flattened, reflected, produced into a tongue-shaped lobe in the middle.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. Honduras.

Resembling *Helicina rostrata*, but having the suture curiously pitted or dentated.

Species 158. (Mus. Brit.)

HELICINA CROSSEI. *Hel. testâ compressâ, subangulatâ, aurantiâ, lævigatâ; spirâ depressâ, apice acuminato; callo ventrali tumidiùsculo; aperturâ semilunari, intùs rubescenti; labio externo planulato, vividè aurantio; ultimo anfractu medio subangulato.*

CROSSE'S HELICINA. Shell compressed, rather angular, orange, smooth; spire depressed, apex acumi-

nated; ventral callus rather swelled; aperture semilunar, reddish within; outer lip flattened, bright orange; last whorl a little angular in the middle.

SEMPER.——? Sowb. Thes. Conch., fig. 357.

Hab. Isl. Luzon, Philippines.

Species 159. (Mus. Brit.)

HELICINA EGREGIA. *Hel. testâ subcompressâ, angulatâ, aurantiâ; suprà medium latè, infrà medium angustè tæniatâ, ad angulum medianum albo-fasciatâ; aperturâ productâ, labio externo ad medium angulato, albo; columellâ angustâ, albâ.*

THE UNCOMMON HELICINA. Shell subcompressed, angular, orange; above the middle widely, below the middle narrowly ribanded, on the middle angle white-banded; aperture produced, outer lip angular in the middle, white; columella narrow, white.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. Isl. Salmon.

Species 160. (Fig. *a*, *b*, Mus. Brit.)

HELICINA KIENERI. *Hel. testâ globoso-angulatâ, supernè griseo vel rubro variegato, spirâ conicâ, ultimo anfractu magno, medio angulato, subcarinato, columellâ subplanulatâ, latâ; labio externo reflexo, medio angulato.*

KIENER'S HELICINA. Shell globosely angular, variegated above with grey or red, spire conical, last whorl large; middle angular, slightly keeled, columella rather flattened, broad; outer lip reflected, angular in the middle.

PFEIFFER. Proc. Zool. Soc., 1848. Thes. Conch., 284, 5.

Hab. Caraccas.

Species 161. (Mus. Brit.)

HELICINA TAMSIANA. *Hel. testâ globosâ, albâ, medio anfractuum rubro unilineatâ; spirâ elevatâ, acuminatâ; columellâ rectiusculâ; aperturâ productâ, labio externo angusto, planulato, reflexo.*

THE TAMSIAN HELICINA. Shell globose, white, with a red line in the middle of the whorls; spire raised, acuminated; columella rather straight; aperture produced, outer lip narrow, flattened, reflected.

PFEIFFER. Zeitschrift für Malakologie, 1850.

Hab. Venezuela.

a *b*

162

163

151 *b*

164 *a*

165

166

167

168

164 *b*

169

170

a

b

171

172

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE XIX.

Fig. 151, b. HELICINA CORDILLERIÆ, see Pl. XVII.

Species 162. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SANDWICHENSIS. *Hel. testâ parvâ, subglobosâ, fulvâ, rubro variegatâ; spirâ convexiusculâ, anfractibus carinatis, ultimo anfractu infrà angulum convexo; aperturâ lateraliter subproductâ, callo ventrali subrotundo; columellâ minutâ.*

THE SANDWICH ISLANDS HELICINA. Shell small, subglobose, fulvous, variegated with red; spire a little convex, whorls keeled, last whorl convex below the angle; aperture laterally a little produced, ventral callus a little rounded; columella minute.

SOULEYET. Voyage de la Bonite. Moll. t. 30, f. 1-5.

Hab. Sandwich Islands.

Species 163. (Mus. Brit.)

HELICINA JAMAICENSIS. *Hel. testâ globosâ, solidâ, pallidè roseâ, spirâ aurantiâ, rubro variegatâ, convexâ, ultimo anfractu rotundo, rubro unifasciato; aperturâ intùs aurantiâ; labio planulato, reflexo, ad juncturam tenuissimo; columellâ parvâ, trigonâ, ad juncturam tenuissimâ.*

THE JAMAICA HELICINA. Shell globose, solid, pale rose, spire orange, variegated with red, convex, last whorl rounded, with a single band of red; aperture orange within; lip flattened, reflected, very thin at the juncture; columella small, trigonal, very thin at the juncture.

SOWERBY. Thesaurus Conchyliorum, first monograph, t. 1, f. 3, 4.

Hab. Jamaica.

Differing from *Helicina aurantia* in not having the same thickened lip and ventral callus, and in the extreme tenuity of the columella and outer lip at their junction.

Species 164. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SUBGLOBOSA. *Hel. testâ globosâ, pallidâ, interdum rubro spiraliter unifasciatâ, spirâ acuminatâ, convexâ, ultimo anfractu subcompresso; collumellâ parvâ, trigonâ; labio externo planulato, reflexo.*

THE SUBGLOBOSE HELICINA. Shell globose, pale, sometimes with a single spiral bend, spire acuminated, convex, last whorl a little compressed; columella small, trigonal, outer lip flattened, reflected.

POEY. Mém., p. 115.

Hab. Florida.

Species 165. (Fig. *a*, *b*, Mus. Brit.)

HELICINA ANTONI. *Hel. testâ parvâ, subviridi, corneâ, subtrochiformi, spirâ elevatâ, anfractibus rotundis, ultimo anfractu compresso.*

ANTON'S HELICINA. Shell small, greenish, horny, somewhat trochiform, spire elevated, whorls rounded, last whorl broad, rounded, compressed.

PFEIFFER. Zeitschrift für Malak., 1848, p. 88.

Hab. Honduras.

Species 166. (Mus. Brit.)

HELICINA MINUTA. *Hel. testâ minutâ, compressâ, medio angulatâ, obliquè striatâ; aperturâ depressâ, apice acuminato; columellâ obliquâ, labio externo tenui, angulato.*

THE MINUTE HELICINA. Shell minute, compressed, angular in the middle, obliquely striated; aperture depressed, apex acuminated; columella oblique, outer lip thin, angular.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Isl. Opara.

Species 167. (Mus. Brit.)

HELICINA VESTITA. *Hel. testâ globosâ, minutâ, pallidâ corneâ, epidermide tenuissimo indutâ, obliquè regu-*

lariter rugatâ; columellâ obliquâ, angustâ; labio externo tenui.

THE INVESTED HELICINA. Shell globose, minute, pale, horny, covered with a very thin epidermis, obliquely regularly wrinkled; columella oblique, narrow; outer lip thin.

GUILDING. Sowerby, Thes. Conch., first monograph, f. 42.

Hab. N. America.

Species 168. (Mus. Brit.)

HELICINA UNICARINATA. *Hel. testâ minutâ, globoso-subacuminatâ, lineis punctisque griseis variegatâ; spirâ conicâ, ultimo anfractu medio angulato, carinato, aperturâ parvâ; columellâ tenui, labio externo vix reflexo.*

THE ONE-KEELED HELICINA. Shell minute, globose, subacuminated, variegated with lines and spots of grey; spire conical, last whorl angular in the middle, keeled, aperture small; columella thin, outer lip scarcely reflected.

SOWERBY. Thes. Conch., Helicina, 2nd monog. sp. 107.

Hab. ——?

Species 169. (Mus. Brit.)

HELICINA RUDIS. *Hel. testâ parvâ, globoso-trochiformi, subrugatâ, rubrâ, griseo variegatâ; spirâ elevatâ, conicâ; ultimo anfractu medio vix angulato, aperturâ productâ, labio externo vix incrassato.*

THE ROUGH HELICINA. Shell small, globose-trochiform, a little roughened, red varied with grey; spire elevated, conical; last whorl scarcely angular in the middle; aperture produced, outer lip scarcely thickened.

PFEIFFER. Proc. Zool., 1855.

Hab. Sydney.

Species 170. (Mus. Brit.)

HELICINA INCONSPICUA. *Hel. testâ parvâ, subviridi, corneâ, subtrochiformi; spirâ parvâ, acuminatâ, ultimo anfractu lato, compresso.*

THE INCONSPICUOUS HELICINA. Shell small, greenish, horny, rather trochiform; spire small, acuminated, last whorl broad, compressed.

PFEIFFER. ——? MS. in Cuming's collection.

Hab. ——?

Species 171. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CORNEA. *Hel. testâ minutâ, subcompressâ, nigrescenti; spirâ conicâ, depressâ, apice acuminato, ultimo anfractu depresso, medio subangulato; aperturâ subangulatâ; callo ventrali rotundo, rubro marginato.*

THE HORNY HELICINA. Shell minute, rather compressed, blackish; spire conical, depressed, apex acuminated, last whorl depressed, a little angular in the middle; aperture a little angular; ventral callus rounded, pink-edged.

SOWERBY. Thes. Conch., 2nd monograph, sp. 186, 187.

Hab. ——?

Species 172. (Mus. Brit.)

HELICINA MULTICOLOR. *Hel. testâ minutâ, subdepressâ, subangulatâ, fulvâ, suprà medium roseo variegatâ, spirâ depresso-conicâ; aperturâ angulatâ, labio externo tenui; columellâ albâ, subtrigonâ parvâ.*

THE MANY-COLOURED HELICINA. Shell minute, subdepressed, subangular, fulvous variegated with pink, spire depressed-conical; aperture angular, outer lip thin; columella white, subtrigonal, small.

GOULD. Proc. Boston Soc.

Hab. Tahiti.

173

174 a

174 b

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176 a

176 b

177

178

179

a b

180

Sowerby del et lith.

Vincent Brooks Day & Son imp

HELICINA.

PLATE XX.

Species 173. (Mus. Brit.)

HELICINA COCCINOSTOMA. *Hel. testâ globosâ, politâ, pallidè roseâ vel fulvâ, spirâ conicâ, apice rubro; ultimo anfractu globoso, infrà vividè rubro-aurantio, columellâ parvâ, trigonâ, ad junctuvam tenui, labio externo crasso, reflexo, in medio subangulato, vivide rubro-aurantio.*

THE RED-MOUTHED HELICINA. Shell globose, polished, pale rose or fulvous, spire conical, apex red; last whorl globose, bright red-orange below, columella small, trigonal, thin at the juncture, outer lip thick, reflected, a little angular in the middle, bright red-orange.

MORELET. Test. Noviss. 1, p. 19.
Helicina Oweni, var. Pfeiffer.
Hab. Tabasco, Peru.

Species 174. (Fig *a*, *b*, Mus. Brit.)

HELICINA AURANTIA. *Hel. testâ globosâ, politâ, pallidè flavidâ, in medio anfractuum spiraliter fusco-unilineatâ; spirâ conicâ, apice fusco, callo ventrali, columellâ et labio externo vividè rubro-aurantiis, incrassatis, labio externo crasso, reflexo, angulatim producto.*

THE ORANGE HELICINA. Shell globose, polished, pale yellowish with a single brown spiral line in the middle of the whorls; spire conical, apex brown, ventral callus, columella, and outer lip bright red-orange, thickened, outer lip thick reflected, produced angularly.

GRAY. Zool. Journ., vol. i. p. 69.
Helicina pyrrhostoma, Menke.
Hab. Jamaica.

Species 175. (Mus. Brit.)

HELICINA SIMILIS. *Hel. testâ angulatâ, depressâ, fusco-aurantiâ, spirâ depresso-conicâ, apice castaneo, ultimo anfractu medio angulato, columellâ parvâ, trigonâ, labio externo reflexo, planulato, suprà medium angulatim producto, vividè aurantio.*

THE SIMILAR HELICINA. Shell angular, depressed, orange-brown, spire depressed, conical, apex chestnut, last whorl angular in the middle, columella smooth, trigonal, outer lip reflected, flattened, angularly produced above the centre, bright orange.

SOWERBY. Thesaurus Conchyliorum, first monograph of Helicina, fig. 130. Proc. Zool. Soc., 1842.
Hab. Haiti.

The lip is broader and more angularly produced than in *Helicina polita*.

Species 176. (Fig. *a*, *b*, Mus. Brit.)

HELICINA ANTILLARUM. *Hel. testâ magnâ, depressâ, tenuissimè striatâ pallidè aurantiâ vel castaneâ, nonnunquam in medio anfractuum albo interruptim unifasciatâ; spirâ depresso-conicâ, anfractibus convexiùsculis, ultimo anfractu rotundatim angulato; labio externo subexpanso, planulato, suprà medium subangulato.*

THE ANTILLES HELICINA. Shell large, depressed, very finely striated pale orange or chestnut, sometimes with an interrupted white band in the middle of the whorls; spire depressed, conical, whorls rather convex, last whorl roundly angular; outer lip somewhat expanded, flattened, with a slight angle above the middle.

SOWERBY. Thesaurus Conchyliorum. Monog. Helic., Sp. 208, fig. 359, 360.
Hab. Antilles.

Species 177. (Mus. Brit.)

HELICINA AMŒNA. *Hel. testâ angulatâ, subrhombeâ, suprà et paulò infrà angulum medianum roseâ,*

lineis rubris minutis reticulatâ, hinc infrà aurantiâ, columellâ rectâ, labio externo aurantio, planulato, reflexo, medio angulato.

THE PLEASING HELICINA. Shell angular, somewhat rhomboidal, above and a little below the medial angle pink reticulated with minute red lines, thence below orange; columella straight, outer lip orange, flattened, reflected, angular in the middle.

PFEIFFER. Proc. Zool. Soc., 1848.

Helicina purpureo-flava, Morelet.

Hab. Honduras Bay.

Species 178. (Mus. Brit.)

HELICINA SANGUINEA. *Hel. testâ depressâ, subrhomboideâ, aurantiâ; spirâ depresso-conicâ; ultimo anfractu medio obtusè angulato; callo ventrali expanso, rotundo, albo, columellâ parvâ, ad junctura incisâ; labio externo planulato, reflexo.*

THE BLEEDING HELICINA. Shell depressed, subrhomboidal, red-orange; spire depressed-conical; last whorl obtusely angular in the middle; ventral callus expanded, rounded, white, columella small, incised at the juncture; outer lip flattened, reflected.

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. Honduras.

Species 179. (Mus. Brit.)

HELICINA GUADALOUPENSIS. *Hel. testâ compressâ, angulatâ, flavido-subviridi, vel castaneâ; spirâ depresso-conicâ, anfractibus convexiùsculis; ultimo anfractu lato, compresso, medio obtusè angulato; callo ventrali parvo, albo, rotundo; columellâ infrà subangulatâ, labio externo aurantio, angusto, subrotundo.*

THE GUADALOUPE HELICINA. Shell compressed, angular, greenish-yellow, or chestnut; spire depressed-conical, whorls rather convex; last whorl broad, compressed, middle obtusely angular; ventral callus small, white, rounded; columella slightly angular below, outer lip orange, narrow, rather rounded.

SOWERBY. Monog. Helicina. Thes. Conch., Sp. 279.

Helicina rufa, var., Pfeiffer.

Hab. Guadaloupe.

Species 180. (Fig. *a*, *b*, Mus. Brit.)

HELICINA NERITELLA. *Hel. testâ globosâ, tenui, lævigatâ, rubro spiraliter bifasciatâ, vel infrà medium unifasciatâ, suprà maculis undulatis variegatâ; spirâ subdepressâ; anfractibus paucis, convexiùsculis, ultimo anfractu magno, inflato, subdepresso; columellâ subtrigonâ, planulatâ; labio externo albo, complanato, expanso, reflexo.*

THE LITTLE NERITE HELICINA. Shell globose, thin, smooth, with two red spiral bands, or single banded below the middle and variegated with undulating spots above; spire rather depressed; whorls few, rather convex, last whorl large, inflated, a little depressed; columella subtrigonal, flattened; outer lip white, flattened, expanded, reflected.

LAMARCK. Hist. Nat. Anim. s. Vert.

Hab. Jamaica.

181

182 a

182 b

183 a

184

185

183 b

186 a

186 b

a b

187

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE XXI.

Species 181. (Mus. Brit.)

HELICINA NORFOLKENSIS. *Hel. testâ pallidè flavâ, angustatâ, subdepressâ; infrà sinuatim uniplicato; spirâ conicâ, anfractibus paucis, parvis; ultimo anfractu compresso, lato, rotundatim angulato; callo ventrali expanso, columellâ trigonâ in dentem acutum desinenti; labio externo suprà depresso, medio rotundatim expanso, infrà sinuatim plicato.*

THE NORFOLK ISLAND HELICINA. Shell pale yellow, narrow, a little depressed, with a sinuous plait below; spire conical, whorls few, small; last whorl compressed, broad, roundly angular; ventral callus expanded, columella trigonal, ending in a sharp tooth; outer lip depressed above, roundly expanded in the middle, sinuously plaited below.

PFEIFFER. Proc. Zool. Soc., 1847.

Hab. Norfolk Island.

Very curiously contracted and plaited at the lower part.

Species 182. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CINCTILLA. *Hel. testâ subtrochiformi, tenui, angulatâ, albâ, anfractibus apicalibus tæniatis, vel suprà angulum roseâ, infrà aurantiâ, ad angulum suturamque albo angustè fasciatâ; spirâ conicâ, elevatâ; ultimo anfractu subcarinato; labio externo planulato, reflexo.*

THE LITTLE BELT HELICINA. Shell rather trochiform, thin, angular, white, with the apical whorls banded, or pink above the angle and orange beneath with a narrow white band at the angle and suture; spire conical, elevated; outer lip flattened, reflected.

SHUTTLEWORTH. —— ?

Hab. Cordova.

The spire is more elevated than in the greater part of these angular species.

Species 183. (Fig. *a*, *b*, Mus. Brit.)

HELICINA OCCIDENTALIS. *Hel. testâ depressâ, angulatâ, latâ, pallidè aurantiâ, spiraliter fasciis duabus angustis, nigricantibus, suprà et infrà angulum vel fasciis latis rubescentibus cinctâ; spirâ depresso-conicâ; ultimo anfractu ad medium carinato; aperturâ subrhomboideâ, columellâ brevi, callo ventrali parvo, labio externo lato, planulato, reflexo, ad medium angulatim producto.*

THE WESTERN HELICINA. Shell depressed, angular, broad, pale orange, spirally girt with two narrow blackish bands above and below the angle, or broad reddish bands; spire depressed, conical; last whorl keeled in the middle; aperture rather rhomboidal, columella short, ventral callus small, outer lip broad flattened, angularly produced in the middle.

GUILDING. Trans. Linn. Soc., p. 339.

Hab. —— ?

Species 184. (Mus. —— ? (olim Sowerby.)

HELICINA SUBOVALIS. *Hel. testâ compressâ, flavidâ, obtusè angulatâ, spirâ depressâ, obtusâ; columellâ parvâ, trigonâ; labio externo angusto, rotundo.*

THE RATHER OVAL HELICINA. Shell compressed yellowish, obtusely angular, spire depressed, obtuse; columella small, trigonal, outer lip narrow rounded.

SOWERBY. Monog. Helicina, Species 198, fig. 376.

Hab. Jamaica.

Species 185. (Mus. Brit.)

HELICINA ZOÆ. *Hel. testâ parvâ, angulatâ, rubescenti; spirâ elevatâ, conicâ, ultimo anfractu subangulato; callo ventrali tumido, expanso, aurantio, rotundo; columellâ brevi, cum labium externum confluenti, aperturâ rhomboideâ, intùs fuscâ, labio externo albo, tenui, rotundo.*

THE ZÖE HELICINA. Shell small, angular, reddish; spire elevated, conical, last whorl rather angular; ventral callus tumid, expanded, orange, rounded; columella short, confluent with the outer lip, aperture rhomboidal, brown within, outer lip white, thin, rounded.

PFEIFFER. MS.

Hab. Cuba.

Species 186. (Fig. *a*, *b*, Mus. Brit.)

HELICINA VARIABILIS. *Hel. testâ angulatâ, ventricosâ, spiraliter striatâ; purpureo vel rubrâ latè fasciatâ, vel albâ; spirâ elevatâ, conicâ; ultimo anfractu medio carinato, ad carinam et infrà albo fasciato; aperturâ rhomboideâ; labio externo expanso, suprà medium angulato.*

THE VARIABLE HELICINA. Shell angular, ventricose, spirally striated; broadly banded with purple or red, or white; spire raised, conical; last whorl keeled in the middle, banded white on the keel and below; aperture rhomboidal; outer lip expanded, angular above the centre.

WAGNER. Spix, Brazil, p. 25.
Helicina zonata, Sowerby.
Helicina fasciata, Spix.
Helicina flava, Spix.
Hab. Brazil.

Species 187. (Fig. *a*, *b*, Mus. Brit.)

HELICINA NICOBARICA. *Hel. testâ parvâ, compressâ, angulatâ, pallidè fuscâ, fasciis rubris, angustis, spiralibus, suprà angulum anfractuum duabus, infrà unâ, tæniatâ; ultimo anfractu depresso, carinato; aperturâ parvâ; columellâ minutâ, albâ; labio externo angusto, albo, medio rotundatim angulato.*

THE NICOBAR HELICINA. Shell small, compressed, angular, pale brown, ribanded with narrow red spiral bands, two above one beneath the angle of the whorls; last whorl depressed, keeled; aperture small; columella minute, white; outer lip narrow, white, roundly angular in the middle.

PHILIPPI. Zeitschrift für Malakologie.
Helicina Merguiensis, Pfeiffer.
Helicina Andamanica, Benson.
Hab. Andaman Islands. Siam.

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189 a

189 b

189 c

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194 a

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194 b

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE XXII.

(Species 188. Mus. Brit.)

HELICINA RETICULATA. *Hel. testâ trochiformi, angulatâ, lævigatâ, flavidâ, suprà medium intùsque fuscâ, lineis rubescentibus reticulatâ; spirâ elevatâ, apice mucronato; ultimo anfractu medio angulato, anticè convexo; callo ventrali tenuissimo; columellâ minutâ; labio externo angulato, albo, tenui.*

THE RETICULATED HELICINA. Shell trochiform, angular, smooth, yellowish, brown above the middle and within, reticulated with reddish lines; spire elevated, apex mucronate; last whorl angular in the middle, anteriorly convex; ventral callus very thin; columella minute; outer lip angular, white, thin.

PFEIFFER. Proc. Zool. Soc., 1862.

Hab. Cape Flattering.

Species 189. (Mus. Brit.)

HELICINA POLITA. *Hel. testâ depresso-angulatâ, lævissimâ, aurantiâ vel pallidè flavidâ, nonnunquam aurantio vel fusco fasciatâ; spirâ depresso-conicâ, anfractibus apicalibus parvis; ultimo anfractu medio angulato; callo ventrali rotundo, columellâ parvâ, albâ; labio externo reflexo, complanato, medio angulato.*

THE POLISHED HELICINA. Shell depressed, angular, very smooth, orange or pale yellowish, sometimes banded with orange or brown; spire depressed-conical, apical whorls small; last whorl angular in the middle; ventral callus rounded, columella small, white; outer lip reflected, flattened, angular in the middle.

SOWERBY. Proc. Zool. Soc., 1842.

Helicina citrina (var.), Pfeiffer.

Hab. Philippines.

This beautiful species is subject to great variations in shape and colour.

Species 190. (Mus. Brit.)

HELICINA SALLEANA. *Hel. testâ depresso-subglobosâ, fumoso-fuscâ, lævi, subangulatâ; spirâ conicâ, brevi; ultimo anfractu majusculo, rotundatim subangulato; callo ventrali albo; columellâ parvâ, aculeatâ; labio externo tenuiusculo, rotundo, medio obtusissimè angulato.*

SALLÉ'S HELICINA. Shell depressed-subglobose, smoky brown, smooth, rather angular; spire conical, short; last whorl rather large, roundly subangular; ventral callus white; columella small, pointed; outer lip rather thin, rounded, very obtusely angular in the middle.

PFEIFFER. Proc. Zool. Soc., 1852.

Hab. Haiti.

Species 191. (Mus. Brit.)

HELICINA STRIATA. *Hel. testâ globoso-subdepressâ, fumoso-fuscâ, longitudinaliter leviter striatâ; spirâ convexâ; ultimo anfractu inflato; callo ventrali subcompresso; columellâ parvâ; labio externo albo, reflexo.*

THE STRIATED HELICINA. Shell globose subdepressed, smoky-brown, longitudinally lightly striated; spire convex; last whorl inflated; ventral callus rather flat; columella small; outer lip white, reflected.

LAMARCK. Hist. Nat. Anim. s. vert.

Hab. Porto Rico.

Species 192. (Fig. *a*, *b*, Mus. Brit.)

HELICINA IDÆ. *Hel. testâ parvâ, depresso-conicâ, rubescenti, lævi; spirâ depressâ; ultimo anfractu angulato, medio luteo fasciato; aperturâ parvâ, depressâ, intùs fuscâ; callo ventrali tenuissimo, columellâ minutâ; labio externo albo, reflexo, complanato.*

IDA'S HELICINA. Shell small, depressed-conical, reddish, smooth; spire depressed; last whorl angular, with a yellow band in the middle; aperture small, depressed, brown within; ventral callus very thin, columella minute, outer lip white, reflected, flattened.

PFEIFFER. Proc. Zool. Soc., 1856, p. 339.

Hab. ——?

Species 193. (Fig. *a*, *b*, Mus. Brit.)

HELICINA MACGILLIVRAYI. *Hel. testâ parvâ, compresso-conicâ, rubro latè bifasciatâ; spirâ depressâ, lateribus convexis; ultimo anfractu rotundatim subangulato; aperturâ parvâ, labio externo tenui, reflexo.*

MACGILLIVRAY'S HELICINA. Shell small, compressed-conical, with two broad red bands; spire depressed, with convex sides; last whorl roundly subangular; aperture small, outer lip thin, reflected.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. Isl. of Pines, South Seas.

A pretty little half compressed, half globose red-banded species.

Species 194. (Fig. *a*, *b*, Mus. Brit.)

HELICINA VIRENS. *Hel. testâ globoso-angulatâ, pallidè viridi vel luteâ, fusco fasciatâ; spirâ elevatâ, conicâ, anfractibus convexiùsculis, carinatis; ultimo anfractu magno, medio carinato; callo ventrali tumido; columellâ cum labium externum confluenti; labio externo planulato, reflexo, medio latiùsculo, angulato.*

THE GREENISH HELICINA. Shell globosely angular, pale green, or yellow with brown bands; spire elevated, conical, keeled in the middle; last whorl large, keeled in the middle; ventral callus tumid; columella confluent with the outer lip; outer lip flattened, reflected, rather broader in the middle, angular.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. ——?

One of the most strongly keeled shells of the group.

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HELICINA.

PLATE XXIII.

Species 195. (Fig. *a*, *b*, Mus. Brit.)

HELICINA RHORI. *Hel. testâ globosâ, carinatâ, albidâ, nonnunquam castaneo propè carinam unifasciatâ; spirâ elevatâ, anfractibus suprà carinam convexis; ultimo anfractu medio validè carinato, infrà carinam convexo; callo ventrali magno, rotundo; columellâ parvâ rectiusculâ, labio externo supernè depresso, infrà ad juncturam emarginato, medio expanso, angulato.*

RHÖR'S HELICINA. Shell globose, carinated, whitish, sometimes with a single chestnut band near the keel; spire elevated, whorls convex above the keel, last whorl strongly keeled, convex below the keel; ventral callus large, rounded; columella small, rather straight, outer lip depressed above, emarginated, expanded in the middle, angular.

PFEIFFER. Proc. Zool. Soc., 1848.

Helicina Marchionessa, Hombrigh.

Hab. ——?

Species 196. (Fig. *a*, *b*, Mus. Brit.)

HELICINA UBERTA. *Hel. testâ pavâ, depressâ, carinatâ, fulvâ, nonnunquam rubro maculatâ, intùs aureâ, spirâ convexâ, apice mucronato; anfractibus suprà carinam subrotundis, infrà carinam convexis; ultimo anfractu paulò infrà medium carinato; aperturâ parvâ.*

THE FRUITFUL HELICINA. Shell small, depressed, keeled, fulvous, sometimes spotted with red, golden within; spire convex, apex mucronate, whorls rather rounded above the keel, convex below the keel; last whorl keeled a little below the middle; aperture small.

GOULD. Proc. Bost. Soc., 1817.

Hab. Sandwich Islands.

Species 197. (Mus. Brit.)

HELICINA ALBO-LABRIS. *Hel. testâ depressâ, angulatâ, pallidè rubrâ; spirâ brevi, conicâ; ultimo anfractu paulò suprà medium acutè carinato, infrà carinam convexo, callo ventrali et columellâ albidis, crassis; labio externo suprà medium angulato, haud reflexo.*

THE WHITE-LIPPED HELICINA. Shell depressed, angular, pale red; spire short, conical; last whorl sharply keeled a little above the middle, convex below the keel, ventral callus and columella whitish, thick; outer lip angular above the middle, not reflected.

HOMBRIGH. Voy. Pol. Sud. Moll.

Hab. Tahiti.

Species 198. (Mus. Brit.)

HELICINA CORRUGATA. *Hel. testâ parvâ, valdè depressâ, angulatâ, fumoso-fuscâ, suprà medium rugoso-undulatâ, spirâ depressâ; ultimo anfractu acutè carinatâ, carinâ undulatâ; callo ventrali crassiusculo; columellâ cum labio externo confluenti.*

THE CORRUGATED HELICINA. Shell small, much depressed, angular, smoky-brown, roughly undulated above the middle, spire depressed; last whorl sharply keeled, keel undulated; ventral callus rather thick; columella confluent with the outer lip.

PEASE. ——?

Hab. Tahiti.

A curious little species characterized by undulations on the upper part of the whorls and the keel.

Species 199. (Mus. Brit.)

HELICINA MAUGERIÆ. *Hel. testâ depressâ, crassâ, angulatâ, pallidè rubescenti; spirâ depresso-conicâ; anfractibus suprà et infrà carinam cæstaneo unifasciatis; ultimo anfractu medio acutè carinato, infrà carinam convexo; callo ventrali lato aurantio, incrassato, columellâ subtrigonâ; labio externo crasso, aurantio, medio producto, infrà ad juncturam subemarginato.*

MAUGER'S HELICINA. Shell depressed, thick, angular, pale reddish; spire depressed-conical; whorls single-banded with chestnut above and below the keel, last whorl sharply keeled in the middle, convex below the keel; ventral callus broad, orange, thickened, columella subtrigonal; outer lip thick, orange, produced in the middle, slightly emarginated below at the juncture.

GRAY. Zoological Journal, vol. i. p. 251.

Hab. Marquesas.

The thickened orange callus and outer lip of this species distinguish it well from others.

Species 200. (Mus. Brit.)

HELICINA ANGULATA. *Hel. testâ subdepressâ, angulatâ, pallidè stramineâ, maculis parvis suprà et infrà carinam variegatâ; spirâ conicâ; ultimo anfractu medio carinateo, infrà medium convexo; columellâ albâ, infrà in spiram curvam producto; labio externo suprà medium arcuato.*

THE ANGULAR HELICINA. Shell subdepressed, angular, pale straw, variegated with small spots above and below the keel; spire conical; last whorl carinated

in the middle, convex below the middle; columella white, produced below into a curved spire; outer lip arched above the middle.

SOWERBY. Thesaurus Conchyliorum, 2nd Mon., Sp. 245.
Hab. Brazil.

Species 201. (Mus. Brit.)

HELICINA GONOCHEILA. *Hel. testâ depressâ, angulatâ, fumoso-fuscâ, suprà et infrà lineis, medio punctis rubris notatâ; spirâ depresso-conicâ; ultimo anfractu medio angulato, albofasciato; columellâ albâ, in spiram recurvam producto; labio externo complanato, reflexo.*

THE ANGLE-LIPPED HELICINA. Shell depressed, angular, smoky-brown, marked above and below with red lines and in the middle with spots; spire depressed-conical; last whorl angular in the middle, white-banded; columella white produced into a recurved spire; outer lip flattened, reflected.

PFEIFFER. Proc. Zool. Soc., 1848.
Hab. Venezuela.

Species 202. (Mus. Brit.)

HELICINA SOWERBYANA. *Hel. testâ magnâ, albidâ, globoso-angulatâ, supernè spiraliter striatâ; spirâ conicâ, apice acuminato; ultimo anfractu ventricoso, infrà angulum convexo, medio carinato; callo ventrali crasso, columellâ parvâ, ad juncturam angulato; labio externo reflexo, expanso, medio obtusè angulato.*

SOWERBY'S HELICINA. Shell large, white, globosely angular, spirally striated above; spire conical, apex acuminated; last whorl ventricose, convex below the angle keeled in the middle; ventral callus thick, columella small, angular at the junction; outer lip reflected, expanded, obtusely angular in the middle.

PFEIFFER. Proc. Zool. Soc., 1848.
Hab. Guatemala.

Species 203. (Mus. Brit.)

HELICINA VILLOSA. *Hel. testâ parvâ, compressâ, fumoso-fuscâ, medio anfractuum carinatâ, ad carinam setis crispatis ornatâ; ultimo anfractu depresso; aperturâ subtrigonâ, labio externo crasso, planulato.*

THE HAIRY HELICINA. Shell small, compressed, smoky-brown, keeled in the middle of the whorls, ornamented with curled hairs at the keel; last whorl depressed; aperture subtrigonal; outer lip thick, flattened.

ANTHONY. ——?
Helicina pilosa, Sowerby.
Hab. Isl. Opara.

Species 204. (Mus. Brit.)

HELICINA ALBO-CINCTA. *Hel. testâ parvâ, depressâ, lenticulari, fumoso-fuscâ; ultimo anfractu obtusè carinatâ; carinâ albâ; aperturâ parvâ, columellâ tenui, albâ, obliquâ; labio externo albo, angusto, rotundo*

THE WHITE-BELTED HELICINA. Shell small, depressed, lenticular smoky-brown; last whorl obtusely keeled; keel white; aperture small; columella thin, white, oblique; outer lip white, narrow rounded.

HOMBRIGH. Voy. Pol. Sud. Moll.
Hab. Arn Island.

Species 205. (Mus. Brit.)

HELICINA HUMILIS. *Hel. testâ minutâ, fuscâ, lenticulari; spirâ depressâ; ultimo anfractu medio angulato; callo ventrali albo, crasso, columellâ arcuatâ; labio externo haud reflexo.*

THE HUMBLE HELICINA. Shell minute, brown, lenticular; spire depressed; last whorl angular in the middle; ventral callus white thick, columella arched, outer lip not reflected.

HOMBRIGH. Voy. Poll. Sud. Moll., t. ii. f. 30-37.
Hab. Hogolu.

Species 206. (Mus. Taylor.)

HELICINA TAYLORIANA. *Hel. testâ tenui, angulatâ, aurantiâ, medio anfractuum acutè carinatâ; carinâ utrinque lineâ rubrâ marginatâ; spirâ conicâ; columellâ albâ, tenui, infrà in spinam productâ; labio externo reflexo, albo, planulato.*

TAYLOR'S HELICINA. Shell thin, angular, orange, sharply keeled in the middle of the whorls; keel bordered with a red line on each side; spire conical; columella white, thin, produced into a spire below; outer lip reflected, white, flattened.

SOWERBY.
Hab. ——?

This is one of the prettiest and most characteristic of all the species.

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208 b

209 a

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209 b

212 213

214 215

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Sowerby del. et lith.

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE XXIV.

Species 207. (Mus. —— ? Copied.)

HELICINA OXYTROPIS. *Hel. testâ trochiformi, acutè carinatâ, pallidâ; spirâ conicâ, elevatâ, anfractibus ad suturam carinatis; aperturâ acutè angulatâ; labio externo albo, angusto, planulato; columellâ rotundâ, cum labio externo confluenti, callo ventrali planulato.*

THE SHARP-FORMED HELICINA. Shell trochiform, sharply keeled, pale, spire conical, elevated, whorls keeled at the suture; aperture sharply angular; outer lip white, narrow, flattened; columella rounded, confluent with the outer lip, ventral callus flattened.

GRAY. Beechy's Appendix.

Helicina oxystoma, Sowerby, Thes., first monograph.

Hab. Bahia.

Species 208. (Fig. *a*, *b*, Mus. Brit.)

HELICINA LAZARUS. *Hel. testâ depresso-conicâ, fuscâ, subtùs subplanulatâ; spirâ convexo-conicâ; anfractibus angustis; ultimo anfractu obtusè angulato, depresso; labio externo supernè depresso, medio subproducto; columellâ brevi.*

THE BEGGAR HELICINA. Shell depressed-conical, brown, rather flattened beneath; spire convex-conical; whorls narrow; last whorl obtusely angular, depressed; outer lip depressed above, produced in the middle; columella short.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Philippines.

Species 209. (Fig *a*, *b*, Mus. Sowerby, &c.)

HELICINA CAROCOLLA. *Hel. testâ depressâ, acutissimè angulatâ, aureolatâ vel purpureâ; spirâ depressâ; ultimo anfractu magno, medio acutè carinato; aperturâ angulatâ; callo columellari albâ, rotundâ; columellâ cum labio externo confluenti; labio externo lato, planulato, supernè depresso, medio in angulum acutum accîvem producto.*

THE CAROCOLLA HELICINA. Shell depressed, very sharply angular, golden or purple; spire depressed; last whorl large, middle sharply keeled; aperture angular; columellar callus white, rounded; columella confluent with the outer lip; outer lip broad, flattened, depressed above, produced in the middle into a sharp upturned angle.

MORICAND. Mem. Gen. VIII. p. 444.

Hab. Brazil.

The peculiarly broad, flattened outer lip, with its upturned angle, distinguishes this from the other species of the depressed form.

Species 210. (Mus. Taylor.)

HELICINA JOSEPHINÆ. *Hel. testâ trochiformi, tenui, lutescenti, supernè maculis subviridis, flammeatis variegatâ; spirâ conicâ, acuminatâ, anfractibus scabriùsculis, ad suturam carinatis; ultimo anfractu infrà medium subplanulatis, ad medium carinâ acutè, serratâ cinctâ; aperturâ trigonâ; labio externo subreflexo, planulato, superni declivi.*

JOSEPHINE'S HELICINA. Shell trochiform, thin, yellowish, variegated above with greenish flame-shaped spots; spire conical, acuminated, whorls rather scabrous keeled at the suture; last whorl a little flattened below the middle, girt in the middle with an acutely serrated keel; aperture trigonal; outer lip slightly reflected, flattened, sloped above.

C. B. ADAMS. Contributions to Conchology, p. 27.

Hab. Jamaica.

Species 211. (Mus. Brit.)

HELICINA CONSTELLATA. *Hel. testâ trochiformi, scabrâ, stramineâ, supernè rubro maculatâ; spirâ conicâ, elevatâ, anfractibus carinâ serratâ, acutissimâ, marginatis, penultimo carinâ exsertâ; aperturâ parvâ, angulatâ; labio externo albo, reflexo, ad medium acutissimè angulato.*

THE CONSTELLATED HELICINA. Shell trochiform, scabrous, straw-coloured, red-spotted above; spire conical, elevated, whorls bordered with a

serrated very sharp keel, the last but one with the keel exserted; aperture small, angular; outer lip white, reflected, very acutely angular in the middle.

MORELET. Révue Zoologique, 1847.

Helicina payoda, Velasquez.

Hab. ——?

This species has the upper whorls more exserted than those of *Helicina stellata*, so that the serrated keel is raised above the suture.

Species 212. (Mus. Brit.)

HELICINA FUSCULA. *Hel. testâ parvâ, pyramidatâ, lævi, fuscâ, castaneo supernè bifasciatâ; spirâ elevatâ, anfractibus convexiùsculis, apice sub cœruleo; ultimo anfractu infrà medium obtusissimè carinato basi subplanulato; aperturâ parvâ, trigonâ, labio externo albo, angusto, infrà medium angulato.*

THE LITTLE BROWN HELICINA. Shell small, pyramidal, smooth, brown, with two chestnut bands above; spire elevated, whorls a little convex, apex bluish; last whorl very obtusely keeled below the centre, rather flattened at the base; aperture small, trigonal, outer lip white, narrow, angular below the centre.

GUNDLACH —— ? Thesaurus Conchyliorum. Helicina, sp. 96, f. 465,6.

Hab. Cuba.

Species 213. (Mus. Brit.)

HELICINA ERYTHRÆA. *Hel. testâ parvâ acuminatâ, pyramidatâ, lævigatâ, fuscâ; spirâ perelevatâ, anfractibus supernè intensè fuscatis; ultimo anfractu infrà medium obtusissimè angulato; aperturâ parvâ.*

THE GOLDEN HELICINA. Shell small, acuminated, pyramidal, smooth, brown; spire much elevated, whorls strongly browned above; last whorl very obtusely angular below the middle; aperture small.

WRIGHT —— ? Sowerby's Thesaurus. Helicina, sp. 95, fig. 461, 462, 463.

Helicina rubella, Wright (var.).

Hab. Cuba.

Species 214. (Mus. Brit.)

HELICINA ALBOVIRIDIS. *Hel. testâ parvâ, pyramidatâ, albâ, viridi unifasciatâ; spirâ elevatâ, acuminatâ, apice viridi; ultimo anfractu rotundato; labio externo albido, leviter reflexo, angulato.*

THE WHITE-GREEN HELICINA. Shell small, pyramidal, white, single-banded with green; spire elevated, acuminated, apex green; last whorl rounded; outer lip white, slightly reflected, angular.

WRIGHT —— ? Sowerby's Thesaurus. Helicina, sp. 96.

Hab. Cuba.

Species 215. (Mus. Brit.)

HELICINA PARVA. *Hel. testâ minutâ, depresso-subglobosâ tenui, aureolato; spirâ parvâ; ultimo anfractu ventricoso; columellâ parvâ, albâ; labio externo reflexo, planulato.*

THE SMALL HELICINA. Shell very small, depressed-subglobose, thin, golden; spire small; last whorl ventricose; columella small, white; outer lip reflected, flattened.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Philippines.

Species 216. (Mus. Brit.)

HELICINA STELLATA. *Hel. testâ depresso-trochiformi, supernè granosâ stramineâ; spirâ turritâ, anfractibus serrato-carinatis, supernè rubro maculatis; ultimo anfractu infrà carinam planulato, rubro unifasciato; aperturâ angulatâ, depressâ, parvâ; labio externo supernè depresso medio angulatim producto.*

THE STELLATED HELICINA. Shell depressed-trochiform, granose above, straw-coloured; spire turreted; whorls with a serrated keel, spotted with red above; last whorl flattened beneath the keel, having a single red band; aperture angular; depressed, small; outer lip depressed above, produced into an angle at the centre.

VELASQUEZ —— ? Jay's Catalogue. Thes. Conch., sp. 268, f. 451.

Hab. ——?

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Sowerby, del et lith.

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE XXV.

Species 217. (Mus. Brit.)

HELICINA HÆMASTOMA. *Hel. testâ subglobosâ, lævi, alba, ad labium externum, callum ventralem apicemque vividè rubrâ; spirâ brevi, anfractibus parvis, ultimo anfractu subventricoso, medio obscurè angulato; labio externo supernè subdepresso, medio subangulato, elevato; columellâ rectiùsculâ, ad junctura cuneatâ.*

THE RED-MOUTHED HELICINA. Shell subglobose, smooth, white, bright red at the outer lip, ventral callus and apex; spire short, whorls small, last whorl rather ventricose, obscurely angular in the middle; outer lip rather depressed, a little angular in the middle, elevated; columella rather straight, cornered at the juncture.

MORICAND. Mem. III. p. 36.

Hab. Bahia.

Species 218. (Mus. Brit.)

HELICINA JUCUNDA. *Hel. testâ pyramidatâ, luteâ vel pallidè fulvâ, columellâ et labio externo rubris, fauce aureolatâ.*

THE JOCUND HELICINA. Shell pyramidal, yellow or pale fulvous, columella and outer lip red, throat golden.

GUNDLACH. Pfr. Bl. Malak., 1863, p. 197.

Hab. Cuba.

Species 219. (Mus. Brit.)

HELICINA CITRINA. *Hel. testâ depresso-subglobosâ, tenui, lævi, lutei; ultimo anfractu ventricoso, columellâ brevi, subtrigonâ; labio externo albo, reflexo, planulato.*

THE CITRON HELICINA. Shell depressed, subglobose, thin, smooth, yellow; last whorl ventricose, columella short, subtrigonal; outer lip white, reflected, flattened.

GRATELOUP. Not *H. polita*, Sowerby. Not *H. citrina*, Sowerby.

Hab. Cuba.

Species 220. (Fig. *a*, *b*, Mus. Brit.)

HELICINA AGGLUTINANS. *Hel. testâ depressâ, angulatâ, aurantiâ, frequenter ad angulum anfractuum luteum in nodis regularibus agglutinanti; aperturâ angulatâ; labio externo reflexo, albo, planulato; ultimo anfractu depresso, carinato; columellâ obliquâ.*

THE AGGLUTINATING HELICINA. Shell depressed, angulated, orange, frequently glueing to it little nodes of mud at the angle of the whorls; aperture angular; outer lip reflected, white, flattened; last whorl depressed, keeled; columella oblique.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Philippines.

The singular habit of glueing particles of dust and mud in regular form at the keel is not apparently exercised by all the specimens of this species, although the power is possessed.

Species 221. (Mus. Brit.)

HELICINA GLOBULOSA. *Hel. testâ globulâ tenui, lævigatâ, aureolâ; spirâ brevi, anfractibus parvis; ultimo anfractu ad suturam mediumque albo fasciato, suprà et infrà medium rubro fasciato; aperturâ semilunatâ; labio externo albo, planulato, reflexo.*

THE GLOBOSE HELICINA. Shell globose, thin, smooth, golden; spire short, whorls small; last whorl, suture and middle banded with white above, and below the middle banded with red; aperture semilunar; outer lip white, flattened, reflected.

ORBIGNY. Moll. Cuba, p. 245.

Hab. Cuba.

A small species, very prettily ribanded with red and white.

Species 222. (Mus. Brit.)

HELICINA LUTEA. *Hel. testâ crassâ, luteâ, globoso-angulatâ; spirâ conicâ, lateraliter convexiùsculâ;*

ultimo anfractu medio subangulato, columellâ angustâ, ad juncturam angulatâ.

THE YELLOWISH HELICINA. Shell thick, yellow, globose-angular; spire conical, laterally rather convex; last whorl rather angular in the middle, columella narrow, angular at the juncture.

LESSON. Voy. Coq., p. 350.

Hab. Port Dorez, New Guinea.

Species 223. (Mus. Brit.)

HELICINA HJALMARSONI. *Hel. testâ globoso-depressâ, fuscâ, tenui; spirâ depressâ; columellâ albâ trigonâ, labio externo alto, tenui, supernè subdepresso.*

HJALMORSON'S HELICINA. Shell globose-depressed, brown, thin; spire depressed; columella white, trigonal; outer lip white, thin, a little bent down above.

PFEIFFER. Malak. Pl. III., 1856.

Hab. Porto Rico.

Species 224. (Mus. Brit.)

HELICINA BULLA. *Hel. testâ albâ, crassiùsculâ, globoso-subangulatâ; spirâ conicâ, labio externo reflexo, medio subangulato; columellâ obliquâ, albâ.*

THE BUBBLE HELICINA. Shell white, rather thick, globose-subangular; spire conical, outer lip reflected, a little angular in the middle; columella oblique, white.

PFEIFFER. Proc. Zool. Soc., 1852.

Hab. —— ?

Species 225. (Mus. Brit.)

HELICINA GRANUM. *Hel. testâ minutâ, albâ, globoso-subdepressâ, spiraliter striatâ; spirâ convexâ, anfractibus subrotundis; ultimo anfractu post columellam excavato; aperturâ parvâ, subquadratâ.*

THE GRAIN HELICINA. Shell minute, white, globose-subdepressed, spirally striated; spire convex, whorls rather rounded; last whorl excavated behind the columella; aperture small, rather square.

PFEIFFER. Bl. Malak., 1856.

Hab. Cuba.

Species 226. (Mus. Brit.)

HELICINA CASTANEA. *Hel. testâ parvâ, subdepressâ, obtusè angulatâ, castaneâ; spirâ depresso-conicâ; ultimo anfractu medio rotundatim angulato; aperturâ infrà acutè angulatâ.*

THE CHESTNUT HELICINA. Shell small, rather depressed, obtusely angular, chestnut; spire depressed-conical; last whorl roundly angular in the middle; aperture with a sharp angle below.

GUILDING —— ? Sowerby's Thesaurus. Helicina, sp. 218, figs. 470, 471.

Hab. St. Thomas, Porto Rico.

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231 *b*

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a *b*

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

HELICINA.

PLATE XXVI.

Species 227. (Mus. Brit.)

HELICINA MACULATA. *Hel. testâ parvâ, politâ, medio angulatâ; fulvâ, fasciis rubris, unâ suprâ, alterâ infrà angulum, maculisque angulatis rubris ad angulum ornatâ; spirâ conicâ; ultimo anfractu infrà medium subangulatim convexo; labio externo supernè depresso; columellâ parvâ.*

THE SPOTTED HELICINA. Shell small, polished, angular in the middle, fulvous, ornamented with one red band above and another below the angle and angular red spots at the angle; spire conical; last whorl below the middle rather angularly convex; outer lip depressed above; columella small.

SOWERBY. Thesaurus Conchyliorum. Helicina, sp. 271, f. 472.

Hab. South America.

Species 228. (Mus. Brit.)

HELICINA BRAZILIANA. *Hel. testâ albidâ, depressâ, spiraliter striatâ; spirâ depresso-conicâ, anfractibus parvis, apice acuminato; ultimo anfractu medio subangulato, infrà convexo, subumbilicato; columellâ rectiùsculâ, supernè rotundâ, ad juncturam obtusè angulatâ; labio externo suprà et infrà compresso, angusto, reflexo.*

THE BRAZILIAN HELICINA. Shell white, depressed, spirally striated; spire depressed-conical, whorls small, apex acuminated; last whorl a little angular in the middle, convex below, somewhat umbilicated; columella rather straight, rounded above, obtusely angular at the juncture; outer lip compressed above and below, narrow, reflected.

GRAY. Zoological Journal, vol. i. p. 64.

Hab. Brazil.

Species 229. (Mus. Brit.)

HELICINA ZEBRIOLATA. *Hel. testâ parvâ, depressâ, angulatâ, fulvâ, strigis rubris longitudinalibus variegatâ; ultimo anfractu acutè carinato.*

THE ZEBRA-STRIPED HELICINA. Shell small, depressed, angular, fulvous, varied with longitudinal red stripes; last whorl sharply keeled.

PFEIFFER. Proc. Zool. Soc., 1855.

Helicina fulgora, Gould.

Hab. Isl? Samar.

Species 230. (Mus. Brit.)

HELICINA MOUHOTI. *Hel. testâ angulatâ, depressâ, aureolâ, medio anfractuum carinâ laqueatâ, latâ, declivi cinctâ; spirâ conicâ, depressâ; ultimo anfractu infrà angulum subplanulato; columellâ albâ, obliquâ cum labio externo confluenti; labio externo compresso, in processum linguiformem producto.*

MOUHOT'S HELICINA. Shell angular, depressed, golden, girt in the middle of the whorls with a fluted broad keel sloped downwards; spire conical, depressed; last whorl rather flattened below the angle; columella white, oblique, confluent with the outer lip; outer lip compressed, produced into a tongue-shaped projection.

PFEIFFER. Proc. Zool. Soc., 1862.

Hab. Lao Mountains, Cambogia.

The beautifully fluted keel in this species distinguishes it from all others, excepting *H. corrugata*, which obscurely shows the same tendencies.

Species 231. (Mus. Brit.)

HELICINA MOQUINIANA. *Hel. testâ angulatâ, tenuiùsculâ, supernè spiraliter striis elevatis, subdistantibus sculptâ, vinoso-fuscâ, maculis rubescentibus suprà angulum in seriebus duobus variegatâ; spirâ conicâ; ultimo anfractu acutè carinato, aperturâ obliquè subquadratâ, labio externo albo, reflexo, medio angulato; callo ventrali rotundo.*

MOQUIN'S HELICINA. Shell angular, rather thin, spirally sculptured on the upper part with raised rather

distant striæ, vinous-brown, varied above the angle with two rows of red spots; spire conical; last whorl sharply keeled, aperture obliquely rather square, outer lip white, reflected, angular in the middle; ventral callus rounded.

RECLUZ. Journal de Conchyliologie, 1851.

Hab. New Caledonia.

Species 232. (Mus. Brit.)

HELICINA OXYRHINCA. *Hel. testâ subcompressâ, angulatâ, aureolâ, tenui; spirâ depresso-conicâ, anfractibus ad suturam carinatis; ultimo anfractu medio acutissimè carinato, infrà medium convexo; aperturâ rhomboideâ; labio externo supernè convexo, tunc depresso, ad angulum medianum in processum sublinguiformem extenso.*

THE SHARP-SNOUTED HELICINA. Shell subcompressed, angular, golden-tinted, thin; spire depressed-conical, whorls keeled at the suture; last whorl very sharply keeled in the middle, convex below the middle; aperture rhomboidal; outer lip convex, then depressed, extended into a tongue-shaped process at the middle angle.

CROSSE. Journ. Conch., vol. xi. p. 266.

Hab. —— ?

Species 233. (Mus. Brit.)

HELICINA FLAMMEA. *Hel. testâ minutâ, depresso-subglobosâ, fuscâ, lineis rubris undulàtis et angulatis variegatâ, obtusissimè angulatâ, suprà angulum depresso-conicâ, infrà angulum convexâ; aperturâ semilunari; labio externo albo, planulato, angusto; columellâ trigonâ, parvâ.*

THE FLAME HELICINA. Shell minute, depressed-subglobose, brown, varied with undulating and angular red lines, very obtusely angular, depressed, conical above the angle, convex below; aperture semilunar, outer lip white, flattened, narrow; columella trigonal, small.

QUOY. Voy. Astro., vol. ii. p. 193, t. 12, f. 1-2.

Hab. Island of Tonga.

Species 234. (Mus. Brit.)

HELICINA SHANGHAENSIS. *Hel. testâ parvâ, depressâ, angulatâ, lutescenti ad angulum et suprà rubro maculatâ; spirâ depressissimo-conicâ; callo ventrali tenui; aperturâ parvâ, angulatâ; labio externo haud reflexo.*

THE SHANGHAE HELICINA. Shell small, depressed, angular, yellowish, spotted with red at the angle and above; spire depressed-conical; ventral callus thin; aperture small, angular; outer lip not reflected.

PFEIFFER. Proc. Zool. Soc., 1855.

Hab. Royalty Island.

A pretty little species shaped something like *Rotella*.

Species 235. (Mus. Brit.)

HELICINA REEVIANA. *Hel. testâ globosâ, spiraliter striatâ, purpurascenti, fasciâ rubrâ interruptâ ad medium anfractuum cinctâ; spirâ subelevatâ, columellâ parvâ, rectâ, labio externo semilunari, albo.*

REEVE'S HELICINA. Shell globose, spirally striated, purplish, girt with an interrupted red band in the middle of the whorls; spire slightly raised, with round whorls; columella small, straight, outer lip semilunar, white.

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. Cuba.

Species 236. (Mus. Brit.)

HELICINA ARTICULATA. *Hel. testâ depresso-angulatâ lævigatâ, ad medium anfractuum et ad suturam articulatim maculatâ; ultimo anfractu medio acutè carinato; callo ventrali magno rotundo; aperturâ subrhomboideâ, labio externo angulato.*

THE ARTICULATED HELICINA. Shell depressed-angular, smooth, articulately spotted at the middle of the whorls and at the suture; last whorl sharply keeled in the middle; ventral callus large, rounded; aperture rather rhomboidal, outer lip angular.

PFEIFFER. Proc. Zool. Soc., 1853.

Hab. New Hebrides.

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Sowerby, del. et lith.

Vincent Brooks Day & Son, Imp.

HELICINA.

PLATE XXVII.

Species 237. (Mus. Brit.)

HELICINA BICOLOR. *Hel. testâ angulatâ, subdepressâ, aureolatâ, suprà et infrà angulum rubro tæniatâ; spirâ depresso-conicâ; ultimo anfractu ad angulum acutè carinato; callo ventrali magno, tumido, rotundo; columellâ infrà obliquè acuminatâ, ad junctura subaculeatâ, labio externo latè reflexo, medio in angulum acutum producto; callo labiisque fusco-sanguineis.*

THE TWO-COLOURED HELICINA. Shell angular, subdepressed, golden-coloured, ribanded above and below the angle with red; spire depressed-conical; last whorl sharply keeled at the angle; ventral callus large, tumid, rounded; columella obliquely acuminated, a little aculeated at the juncture, outer lip broadly reflected, produced into a sharp angle in the middle; callus and lips brownish blood-colour.

PFEIFFER. Proc. Zool. Soc., 1853.

Hab. Tahiti.

Species 238. (Mus. Brit.)

HELICINA ROSALIÆ. *Hel. testâ depressâ, angulatâ, aureolatâ, ad angulum suprà et infrà rubro tæniatâ; spirâ subdepressâ, anfractibus convexiùsculis, carinatis; ultimo anfractu medio acutè carinato, infrà carinam convexo; aperturâ subrhomboideâ, columellâ supernè subcallosâ, infrà cum labio externo confluenti; labio externo albo, angustè reflexo, medio acutè angulato.*

ROSALIE'S HELICINA. Shell depressed, angular, golden, with a ribband of red at the angle above and below; spire rather depressed, whorls a little convex, keeled; last whorl sharply keeled in the middle; convex below the keel; aperture subrhomboidal, columella rather callus above; confluent with the outer lip; outer lip white, narrowly reflected, sharply angular in the middle.

PFEIFFER. Proc. Zool Soc., 1863.

Hab. Philippines.

Species 239. (Mus. Brit.)

HELICINA ARUANA. *Hel. testâ angulatâ, stramineâ, infrà angulum rubro unifasciatâ, suprà angulum spiraliter striatâ et decussatâ; spirâ conicâ; ultimo anfractu infrà aureolato, lævigato, convexo ad angulum acutè carinato; columellâ cum labio externo confluenti; labio externo supernè depresso, ad medium acuminato.*

THE ARU ISLAND HELICINA. Shell angular, straw-coloured, with a single band of red below the angle; spirally striated and decussated above the angle; spire conical; last whorl golden, smooth, convex below, sharply keeled at the angle; columella confluent with the outer lip; outer lip depressed above, acuminated at the middle.

PFEIFFER. Proc. Zool. Soc., 1859.

Hab. Aru Island.

Species 240. (Mus. Brit.)

HELICINA RHYNCOSTOMA. *Hel. testâ depressâ, angulatâ, carinatâ, stramineâ, ad angulum suprà infràque angustè rubro-fasciatâ; spirâ conicâ, anfractibus plusminùsve depressis; ultimo anfractu paulò infrà medium acutissimè carinato, infrà carinam convexiùsculo; callo ventrali albo, parvo, rotundo, columellâ brevissimâ; aperturâ intùs rubescenti, labio externò albo, reflexo, in angulum acutissimum producto.*

THE SNOUT-MOUTHED HELICINA. Shell depressed, angular, keeled, straw-coloured, with a narrow red band at the angle above and below; spire conical, whorls more or less depressed; last whorl sharply keeled a little below the middle, rather convex below the keel; ventral callus white, small, rounded, columella very short; aperture reddish within, outer lip white, reflected, produced into a very sharp angle.

SHUTTLEWORTH —— ? Sowerby's Thesaurus. Helicina, sp. 252, figs. 429, 430.

Hab. Venezuela.

Species 241. (Mus. Brit.)

HELICINA CARINIFERA. *Hel. testâ depressâ, angulatâ, stramineâ, spiraliter striatâ; spirâ depresso-conicâ, anfractibus vix convexis; ultimo anfractu medio acutè carinato, infrà medium convexo; aperturâ subquadratâ; labio externo reflexo, planulato infrà et suprà angulum convexiùsculo.*

THE KEEL-BEARING HELICINA. Shell depressed, angular, straw-coloured, spirally striated; spire depressed, conical, whorls scarcely convex; last whorl sharply keeled in the middle, convex below the keel; aperture subquadrate; outer lip reflected, flattened, rather convex above and below the angle.

ORBIGNY. Voy. Amer. Merid.

Helicina Fischeriana, Montrouzier.

Hab. Woodlark Island.

Species 242.

HELICINA GHIESBRIGHTI. *Hel. testâ depressâ, angulatâ, stramineâ; spiraliter striatâ; spirâ depressâ, subconicâ; anfractibus convexiùsculis, ultimo anfractu, medio acutè carinato, infrà medium convexo; callo ventrali parvo, rotundo; columellâ brevissimâ; labio externo reflexo, planulato, medio subrostrato.*

GHIESBRIGHT'S HELICINA. Shell depressed, angular, straw-coloured; spirally striated; spire depressed, rather conical; whorls rather convex, last whorl sharply keeled in the middle, convex below the middle; ventral callus small, round; columella very short; outer lip reflected, flattened.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Chiape.

Species 243. (Mus. Brit.)

HELICINA BESKII. *Hel. testâ depressâ, angulatâ, spiraliter striatâ, stramineâ, ad suturam rubro unifasciatâ; spirâ conicâ, anfractibus convexiùsculis; ultimo anfractu carinato, infrà angulum convexo; columellâ parvâ, trigonâ; labio externo albo, reflexo, planulato.*

BESKI'S HELICINA. Shell depressed, angular, spirally striated, straw-coloured, single banded at the suture with red; spire conical, whorls rather convex; last whorl keeled, convex below the keel; columella small, trigonal; outer lip white, reflected, flattened.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Brazil.

This is another of the large angular species which show a convexity in the whorls, and particularly at the lower part of the last whorl.

Species 244. (Mus. Brit.)

HELICINA TECTA. *Hel. testâ subdepressâ, angulatâ, spiraliter striatâ, acutissimè carinatâ, ad suturam et ad carinam, atque suprà et infrà, maculis regularibus vividè rubris seriatim ornatâ; spirâ conicâ, anfractibus vix convexis, ultimo anfractu infrà convexo; labio externo albo, reflexo.*

THE ROOFED HELICINA. Shell rather depressed, angular, spirally striated, very acutely keeled, ornamented at the suture and at the keel above and below with regular rows of bright red spots; spire conical, whorls scarcely convex; outer lip white, reflected.

SOWERBY. Thesaurus Conchyliorum. Helicina, sp. 256, fig. 434.

Hab. ——?

Species 245. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SOLIDULA. *Hel. testâ crassâ, angulato-subglobosâ, luteâ vel purpureâ, callo et aperturâ luteis; spirâ convexo-conicâ, ultimo anfractu obtusè carinato; callo ventrali rotundo, labio externo medio angulatim producto, infrà angulum sinuato.*

THE SOLID LITTLE HELICINA. Shell thick, angularly-subglobose, yellow or purple, callus and aperture yellow; spire convex-conical; last whorl obtusely keeled; ventral callus rounded, outer lip angularly produced in the middle, sinuated below the angle.

GRAY. Zoology of Beechy's Voyage, p. 146.

Hab. Marquesas.

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246 b

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246 c

251 252

253 254

a b

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Sowerby, del et lith.

Vincent Brooks Day & Son. Imp

HELICINA.

PLATE XXVIII.

Species 246. (Fig. *a. b, c*, Mus. Brit.)

HELICINA ACUTISSIMA. *Hel. testâ subconicâ, plus-minùsve depressâ, acutissimè angulatâ, tenui, aureolatâ, rubro nonnunquam tæniatâ; spirâ conicâ, ultimo anfractu medio vel infrà medium acutè carinatâ; aperturâ supernè depressâ, labio externò reflexo, planulato, ad angulum medianum in rostrum producto.*

THE VERY SHARP HELICINA. Shell rather conical, more or less depressed, very acutely angular, thin, golden, sometimes banded with red; spire conical, last whorl sharply keeled at the middle or below; aperture depressed above, outer lip reflected, flattened, produced into a beak at the middle angle.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Philippines.

Species 247. (Mus. Brit.)

HELICINA PALLIDA. *Hel. testâ fulvâ, crassiùsculâ, depresso-angulatâ; spirâ depresso-conicâ; ultimo anfractu medio carinato, infrà carinam convexo; callo ventrali parvo, rotundato; aperturâ subquadratâ, labio externo supernè subarcuato, medio angulato, infrà rotundato.*

THE PALE HELICINA. Shell fulvous, rather thick, depressed angular; spire depressed-conical; last whorl keeled in the middle, convex below the keel; ventral callus small, rounded; aperture rather square, outer lip a little arched above, middle angular, rounded below.

GOULD. Proc. Bost. Soc., 1847.

Hab. Fiji Islands.

Species 248. (Mus. Brit.)

HELICINA LENS. *Hel. testâ minutâ, rufescens, depressâ, lenticulari angulatâ; spirâ convexâ; ultimo anfractu medio obtusè carinato infrà medium convexo; callo ventrali rotundato, columellâ trigonâ; aperturâ transversè oblongâ, supernè depressâ.*

THE LENS HELICINA. Shell minute, reddish, depressed lenticular, angular; spire convex; last whorl obtusely keeled in the middle, convex below the middle; ventral callus rounded; columella trigonal; aperture transversely oblong, depressed above.

LEA. Obs., 1, p. 161.

Hab. Fiji Islands.

Species 249. (Mus. Brit.)

HELICINA UNIFASCIATA. *Hel. testâ depressâ, sublenticulari, spiraliter striatâ, æqualiter suprà infràque angulum convexâ, suprà angulum rubro-unifasciatâ; aperturâ transversè oblongâ, labio externo infrà angulum validè arcuato, suprà depresso-arcuato.*

THE SINGLE-BANDED HELICINA. Shell depressed, lenticular, spirally striated, equally convex above and below the angle, with a single red band above the angle; aperture transversely oblong, outer lip strongly arched below the angle, depressed-arched above.

GRAY. Zoological Journal, vol. i. p. 69.

Hab. ——?

Species 250. (Mus. Brit.)

HELICINA ARENICOLA. *Hel. testâ globosâ, solidâ, albâ, spiraliter striatâ, medio anfractuum carinatâ; spirâ convexo-depressâ; aperturâ subrotundâ, columellâ aculeatâ, labio externo rotundo, reflexo; callo ventrali tenui.*

THE SAND-DWELLING HELICINA. Shell globose, solid, white, spirally striated, keeled in the middle of the whorls; spire convex depressed; aperture

rather rounded, columella pointed, outer lip round, reflected; ventral callus thin.

MORTON. Test. Nov. Cub.

Hab. Cuba.

Species 251. (Mus. Brit.)

HELICINA DIAPHANA. *Hel. testâ parvâ, tenui, luteâ, subangulatâ; spirâ brevi, conicâ; ultimo anfractu obtusè angulato; columellâ trigonâ, labio externo medio producto.*

THE TRANSPARENT HELICINA. Shell small, thin, yellow, rather angular; spire short, conical; last whorl obtusely angular; columella trigonal, outer lip produced in the middle.

PFEIFFER. Proc. Zool. Soc., 1850.

Hab. Honduras.

Species 252. (Mus. Brit.

HELICINA FUMIGATA. *Hel. testâ parvâ, tenui, angulatâ, lævigatâ, fumoso-fuscâ, fusco-rubescenti ad suturam mediumque fasciatâ; columellâ parvâ, aculeatâ, labio externo albo, angusto.*

THE FUMIGATED HELICINA. Shell small, thin, angular, smooth, smoky-brown, with a reddish-brown riband at the suture and one in the middle; columella small, aculeated, outer lip white, narrow.

SOWERBY. Thesaurus Conchyliorum. Helicina, sp. 193, f. 345.

Helicina Gouldiana, Forbes.

Hab. Cape Flattery.

Species 253. (Mus. Brit.)

HELICINA ORBIGNYI. *Hel. testâ depressâ, sublenticulari, obscurè fuscâ; spirâ brevi; ultimo anfractu obtusisimè angulato, callo ventrali tenui, columellâ parvâ, albâ, aculeatâ; aperturâ transversè oblongâ.*

ORBIGNY'S HELICINA. Shell depressed, nearly lenticular, dull brown; spire short; last whorl very obtusely angular; ventral callus thin, columella small, white, aculeated; aperture transversely oblong.

PFEIFFER. Monograph No. 65.

Hab. Cuba.

Species 254. (Mus. Brit.)

HELICINA FORBESIANA. *Hel. testâ parvâ, subangulatâ, fulvo-lutescenti; spirâ conicâ, anfractibus parvis; ultimo anfractu medio obtusè angulato; columellâ minutâ, albâ, aculeatâ; labio externo angustissimè reflexo, ad puncturam inferiorem tenuissimo.*

FORBES'S HELICINA. Shell small, rather angular, fulvous yellow; spire conical, whorls small; last whorl obtusely angular in the middle; columella minute, white, aculeated; outer lip very narrowly reflected, very thin at the lower juncture.

PFEIFFER. Proc. Bost. Soc., 1859.

Helicina verecundia?

Hab. Cape York.

Species 255. (Mus. Brit.)

HELICINA MINUTA. *Hel. testâ parvâ, depressâ, sublenticulari, fumoso-fuscâ; spirâ parvâ, anfractibus minutis; ultimo anfractu medio obtusè angulato; columellâ albâ, brevi, acuminatâ; labio externo tenui.*

THE MINUTE HELICINA. Shell small, depressed, rather lenticular, smoky-brown; spire small, whorls minute; last whorl obtusely angular in the middle; columella white, short, acuminated; outer lip thin.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Opara Island.

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Sowerby del et lith.

Vincent Brooks Day & Son Imp

HELICINA.

PLATE XXIX.

Species 256. (Mus. Brit.)

HELICINA HANLEYANA. *Hel. testâ globoso-conicâ, pallidè fulvâ; spirâ conicâ, anfractibus convexiùsculis; ultimo anfractu subrotundo; columellâ trigonâ; labio externo rotundo.*

HANLEY'S HELICINA. Shell globose-conical, pale fulvous; spire conical, whorls rather convex; last whorl rather round, columella trigonal; outer lip round.

PFEIFFER. Proc. Zool. Soc., 1848.

Hab. New Orleans.

Species 257. (Fig. *a*, *b*, Mus. Brit.)

HELICINA LOUISADENSIS. *Hel. testâ parvâ, pallidissimè fulvâ, tenui; spirâ subconicâ, depressâ, ultimo anfractu rotundo; columellâ parvâ, trigonâ; labio externo reflexo, albo.*

THE LOUISADA HELICINA. Shell small, very pale fulvous, thin; spire a little conical depressed, last whorl round; columella small, trigonal; outer lip reflected, white.

FORBES. Voyage of Rattlesnake.

Hab. Round Island.

Species 258. (Fig. *a*, *b*, Mus. Brit.)

HELICINA DYSONI. *Hel. testâ, depresso-globosâ, tenui, spiraliter rubro trifasciatâ; spirâ conicâ, depressâ; ultimo anfractu infrà calloso, callo rotundo, albo; columellâ parvâ, rectiùsculâ; aperturâ semilunari; labio externo angusto.*

DYSON'S HELICINA. Shell depressed-globose, thin, spirally three-banded with red; spire conical, depressed; last whorl callous below, callus rounded white; columella small, rather straight; aperture semilunar; outer lip narrow.

PFEIFFER. Proc. Zool. Soc., 1848.

Helicina foveata, Pfeiffer (Dysoni, var.).

Hab. Honduras, Isl. St. Thomas.

Species 259. (Fig. *a*, *b*, Mus. Brit.)

HELICINA MODESTA. *Hel. testâ globoso-subangulatâ, luteâ, tenui; spirâ conicâ, subelatâ, anfractibus convexiùsculis; ultimo anfractu rotundo-angulato, columellâ trigonâ, acuminatâ; labio externo tenui.*

THE MODEST HELICINA. Shell globose-subangular, yellow, thin; spire conical, rather elated, whorls rather convex; last whorl rounded, angular; columella trigonal, acuminated; outer lip thin.

PFEIFFER. Proc. Zool. Soc., 1853.

Hab. New Hebrides.

Species 260. (Mus. Brit.)

HELICINA OCCULTA. *Hel. testâ parvâ, globosâ, pallidè fulvâ, solidiùsculâ, medio albo fasciatâ, suprà et infrà rubro-fasciatâ; spirâ vix conicâ, anfractibus parvis, convexiùsculis; ultimo anfractu rotundo; columellâ parvâ, trigonâ, albâ; labio externo albo, planulato, reflexo.*

THE HIDDEN HELICINA. Shell small, globose, pale fulvous, rather solid, banded with white in the middle, and with red above and below the middle; spire scarcely conical, whorls small, rather convex; last whorl rounded; columella small, trigonal, white; outer lip white, flattened, reflected.

SOWERBY. Thes. Conch. Helicina, f. 137.

Hab. New York.

Species 261. (Mus. Brit.)

HELICINA ORBICULATA. *Hel. testâ globosâ, crassâ, fulvâ; spirâ parvâ; ultimo anfractu ventricoso; callo ventrali rotundo, columellâ cum labio externo confluenti, ad juncturam obscurissimè angulato; labio externo crassiùsculo; aperturâ semicirculari.*

THE ORBICULAR HELICINA. Shell globose, thick, fulvous; spire small; last whorl ventricose; ventral callus

rounded, columella confluent with the outer lip, very obscurely angular at the juncture; outer lip rather thick; aperture half round.

SOWERBY. Philosophical Journal, vol. i. p. 283.

Hab. North America.

Species 262. (Mus. Brit.)

HELICINA JAPONICA. *Hel. testâ globosâ, albidâ, crassâ, spirâ conicâ, acuminatâ, anfractibus convexiùsculis; ultimo anfractu rotundo; columellâ trigonâ, ad juncturam incisâ; labio externo crasso, rotundo.*

THE JAPAN HELICINA. Shell globose, whitish, thick, spire conical, acuminated, whorls rather convex; last whorl rounded; columella trigonal, incised at the juncture; outer lip thick, rounded.

A. ADAMS. Ann. and Mag. of Natural History, 1861.

Hab. Japan.

This rounded species rather resembles *Helicina orbiculata*, from which it differs in having the columella separated from the outer lip by an incised notch.

Species 263. (Mus. Brit.)

HELICINA SUBCONICA. *Hel. testâ albâ, tenui, subangulatâ; spirâ conicâ elevatâ; ultimo anfractu medio obtusè angulato; columellâ cum labio externo confluenti; labio externo supernè declivi, medio rotundo, basi rectiùsculo.*

THE RATHER CONICAL HELICINA. Shell white, thin, rather angular; spire conical, elevated; last whorl obtusely angular in the middle; collumella confluent with the outer lip; outer lip sloped above, rounded in centre, rather straight at the base.

SOWERBY. Thesaurus Conchyliorum. Helicina, sp. 140, fig. 226.

Hab. ——?

Species 264. (Mus. Brit.)

HELICINA YORKENSIS. *Hel. testâ lævi, subangulatâ, tenui, luteâ, suprà et infrà medium fulvescenti; spirâ conicâ; aperturâ semilunari; columellâ brevissimâ, aculeatâ.*

THE CAPE-YORK HELICINA. Shell smooth, rather angular, thin, yellowish, fulvescent above and below the middle; spire conical; aperture semilunar; columella very short, aculeated.

PFEIFFER. Proc. Zool. Soc., 1862.

Hab. Cape York.

Species 265. (Fig. *a*, *b*, Mus. Brit.)

HELICINA SUBLÆVIGATA. *Hel. testâ globoso-angulatâ; fulvâ unicolori vel latè suprà et infrà fasciatâ; ultimo anfractu subangulato; callo ventrali tumido, rotundo; columellâ minutâ, aculeatâ; labio externo rubro.*

THE SMOOTHISH HELICINA. Shell globose, subangular, uniform fulvous or broadly banded above and below; last whorl rather angular, ventral callus tumid, rounded; columella minute, outer lip red.

PFEIFFER. Proc. Zool. Soc., 1852.

Hab. New Hebrides.

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Sowerby del et lith

Vincent Brooks Day & Son, Imp

HELICINA.

PLATE XXX.

Fig. 264, *a*.

The shell inadvertently figured in Plate XXIX. for *Helicina Forbesiana* is a variety of *H. fasciata*.

Species 266. (Mus. Brit.)

HELICINA DRAYTONENSIS. *Hel. testâ globoso-subangulatâ, luteâ, solidiùsculâ; spirâ brevi, anfractibus parvis; ultimo anfractu medio rotundatim angulato; columellâ brevi, albâ, cum labio externo confluenti; labio externo rotundo, reflexo, albo.*

DRAYTON'S HELICINA. Shell globose-subangular, yellow, rather solid; spire short, whorls small; last whorl roundly angular in the middle; columella short, white, confluent with the outer lip; outer lip rounded, reflected, white.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Australia.

Species 267. (Mus. Brit.)

HELICINA BORNEENSIS. *Hel. testâ parvâ, subangulatâ, subdepressâ, pallidè fulvâ, spiraliter fusco-rubescenti bifasciatâ; spirâ conico-depressâ; ultimo anfractu angusto, medio obtusè angulato; columellâ parvâ, obliquâ, albâ; labio externo vix reflexo.*

THE BORNEAN HELICINA. Shell small, rather angular, rather depressed, pale fulvous, with two reddish-brown spiral bands; spire depressed-conical; last whorl narrow, obtusely angular in the middle; columella small, oblique, white; outer lip scarcely reflected.

MARTENS. Monaschriften, Berlin Akademie, 1864.

Hab. Borneo.

A very neat little species, with conical spire and two reddish-brown bands.

Species 268. (Mus. Brit.)

HELICINA PICTELLA. *Hel. testâ minutâ, depresso-subglobosâ, pallidè fulvâ, supernè flammeis rubris pictâ; columellâ minutâ; labio externo tenui.*

THE LITTLE PAINTED HELICINA. Shell minute, depressed-subglobose, pale fulvous, painted above with red flames; columella minute; outer lip thin.

PFEIFFER. Proc. Zool. Soc., 1856.

Hab. Norfolk Island.

Species 269. (Mus. Brit.)

HELICINA OLEOSA. *Hel. testâ minutâ, globosâ, fulvâ; lineis obliquis rubris, medio interruptis vel angulatis pictâ; spirâ convexo-conicâ; anfractibus convexis; ultimo anfractu angusto, medio obtusè angulato; columellâ parvâ, albâ, trigonâ; aperturâ intùs fuscâ, labio externo tenui.*

THE FAT HELICINA. Shell minute, globose, fulvous; painted with oblique red lines interrupted or angular in the middle; spire convex-conical; whorls convex; last whorl narrow, obtusely angular in the middle; columella small, white, trigonal; aperture brown within, outer lip thin.

PFEIFFER. Proc. Zool. Soc., 1852.

Hab. Haiti.

Species 270. (Mus. Brit.)

HELICINA PHASIANELLA. *Hel. testâ parvâ, depresso-subglobosâ, tenui; fulvo-rubescenti, maculis propè suturam e fasciisque duabus medio et infrà rubris pictâ; spirâ conicâ, apice rubro; columellâ trigonâ, albâ; labio externo tenui.*

THE PHEASANT HELICINA. Shell small, depressed-subglobose, thin; reddish-brown, painted with red spots near the suture, and two bands in the middle and below; spire conical, apex red; columella trigonal, white; outer lip thin.

PFEIFFER. Malak., vol. iii. 1856.

Hab. Porto Rico.

Species 271. (Mus. Brit.)

HELICINA MULTIFASCIATA. *Hel. testâ depressâ, angulatâ, pallidâ, tenuiter spiraliter multifasciatâ; spirâ*

depresso-conicâ; ultimo anfractu rotundatim angulato; callo ventrali albo, rotundo; columellâ tenuissimâ; labio externo tenui, angulato.

THE MANY-BANDED HELICINA. Shell depressed, angular, pale, with numerous thin spiral bands; spire depressed-conical; last whorl roundly angular; ventral callus white, rounded; columella very thin; outer lip thin, angular.

BAIRD. Cruise of the *Curaçoa.*

Hab. South Sea Islands, J. Brenchley, Esq.

Species 272. (Mus. Brit.)

HELICINA JULII. *Hel. testâ depresso-subglobosâ, pallidè aurantiâ, viridi strigatâ, lineis fulvis ornatè dispositis supernè et paulò infrà medium pictâ; ultimo anfractu rotundatim angulato; columellâ parvâ, albâ; labio externo tenui.*

JULIUS'S HELICINA. Shell depressed-subglobose; pale orange, striped with green, painted with fulvous lines arranged ornamentally above and a little below the middle; last whorl roundly angular; columella small, white; outer lip thin.

BAIRD. Cruise of the *Curaçoa.*

Hab. Cockatoo Island, Solomon's Islands, J. Brenchley, Esq.

Species 273. (Mus. Brit.)

HELICINA BRENCHLEYI. *Hel. testâ angulatâ, depressâ, pallidè fulvâ, maculis subquadratis ad suturam et super carinam, lineisque flexuosis ornatè dispositis pictâ; spirâ depressâ; ultimo anfractu medio carinato, infrà carinam ferè immaculato; columellâ parvâ, rectâ, rubro-immaculatâ; aperturâ angulatâ.*

BRENCHLEY'S HELICINA. Shell angular, depressed, pale fulvous, painted with red spots at the suture and upon the angle and flexuous lines ornamentally arranged; spire depressed; last whorl keeled in the middle, almost spotless under the keel; columella small, straight, with a single red spot; aperture angular.

BAIRD. Cruise of the *Curaçoa.*

Hab. South Sea Islands.

Species 274. (Mus. Brit.)

HELICINA STRIGATA. *Hel. testâ parvâ, roseo-albâ, nitenti, translucidâ, subangulatâ; spirâ depresso-conicâ, anfractibus suprà angulos lineis rubris, eleganter arcuatis pictis; ultimo anfractu depresso-angulato, infrà angulum fusco unifasciato, callo ventrali tumido, subcœruleo.*

THE STRIPED HELICINA. Shell small, rosy-white, shining, translucid, rather angular; spire depressed-conical, whorls painted with red lines ornamentally arranged; last whorl depressed-angular, with a single soft band below the angle; ventral callus tumid, bluish.

BAIRD. Cruise of the *Curaçoa.*

Hab. Upolu, Navigators Island.

This and the three preceding interesting little species are described and figured in Mr. Brenchley's "Cruise of H.M.S. *Curaçoa.*"

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Sowerby, del. et lith.

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE XXXI.

Species 275. (Mus. Crosse.)

HELICINA MITTOCHEILA. *Hel. testâ parvâ, subglobosâ, solidâ, albâ; spirâ brevi, anfractibus convexiùsculis, apicalibus minutis; ultimo anfractu magno, declivi, medio obtusissimè angulato; aperturâ parvâ, obliquâ, subcoarctatâ; labio externo angusto, reflexo, sanguineo; columellâ parvâ, subtrigonâ, callo ventrali lato, crasso, sanguineo.*

THE RED-MARGINED HELICINA. Shell small, subglobose, solid, white; spire short, whorls rather convex, the apical ones minute; last whorl large, sloped, obtusely angular in the middle; aperture small, oblique, rather contracted; outer lip narrow, reflected, blood-red; columella small, subtrigonal, ventral callus broad, thick, blood-red.

CROSSE. Journ. de Conch., 1871, p. 67, Pl. II., f. 5.

Hab. Pacific.

Species 276. (Fig. *a*, *b*, Mus. Brit.)

HELICINA NOTATA. *Hel. testâ globoso-conicâ, pallidissimè fulvâ vel flavidâ, solidiùsculâ; spirâ acuminatâ, anfractu penultimo maculo rotundo notato; labio externo reflexo, columellâ trigonâ, parvâ; callo ventrali inconspicuo.*

THE MARKED HELICINA. Shell globose-conical, pale fulvous or yellowish, rather solid; spire acuminated, last whorl marked with a round spot; outer lip reflected, columella trigonal, small; ventral callus inconspicuous.

SALLÉ. Proc. Zool. Soc., 1856.

Hab. Mexico.

The distinctive description of this species has been inadvertently left incomplete in the Thesaurus Monograph, the sentence being cut short without mentioning the peculiar round spot seen in every specimen, on the penultimate whorl.

Species 277. (Fig. *a*, *b*, Mus. Brit.)

HELICINA CINGULATA. *Hel. testâ globoso-subdepressâ, spiraliter striatâ, albidâ, vel subroseâ, lineâ rubrâ interruptâ medio anfractum cinctâ; anfractibus subdepressis, rotundatis, apice rubro, obtuso; aperturâ intùs aurantiâ; labio externo rotundo; columellâ parvâ, rectiùsculâ, albâ.*

THE BELTED HELICINA. Shell globose-subdepressed, spirally striated, whitish, or rather pinky, girt with a red interrupted line in the middle of the whorls; whorls rather depressed, rounded, apex red, obtuse; aperture orange within; outer lip rounded; columella small, rather straight, white.

GRAY. Proc. Zool. Soc., 1852.

Hab. Haiti.

Species 278. (Fig. *a*, *b*, Mus. Crosse.)

HELICINA LÆTA. *Hel. testâ globoso-depressâ, tenui, spiraliter striatâ, pallidè roseâ, infrà medium anfractuum tæniâ angustâ rubrâ, spirali cinctâ, suprà medium flammulis maculisque irregularibus rubris ornatâ; spirâ depressâ; anfractibus angustis; ultimo anfractu obscurissimè angulato; aperturâ subrhomboideâ; labio externo reflexo, planato, callo ventrali lato, crassiùsculo, flavido.*

THE JOYOUS HELICINA. Shell globose-depressed, thin, spirally striated, pale pink, girt with a narrow red spiral band below the middle of the whorls, ornamented with irregular red flames and spots above the middle; spire depressed; whorls narrow; last whorl very obscurely angular; aperture subrhomboidal; outer lip reflected, flattened, ventral callus broad, rather thick, yellowish.

CROSSE. Journal de Conchyliologie, 1870, p. 246, 1870, Pl. VI., fig. 5.

Hab. Mount Mori, New Caledonia.

Much more compressed than the preceding species.

Species 279. (Mus. Crosse.)

HELICINA BENIGNA. *Hel. testâ compressâ, tenui, lævigatâ, sub lentè minutissimè decussatâ patescenti, pallidè fulvâ; aperturâ intùs fusco-rubrâ, columellâ*

brevissimâ, tenui, callo ventrali . tenui, rotundo, fusco-rubro, labio externo tenui ; spirâ brevissimâ.

THE BENIGN HELICINA. Shell compressed, thin, smooth, appearing under the lens very minutely decussated, pale fulvous; aperture brown-red within, columella very short, thin, ventral callus thin, rounded, red-brown, outer lip thin; spire very short.

CROSSE. Journal de Conchyliologie, vol. xviii. p. 246, 1870, Pl. VI. (1871), fig. 7.

Hab. New Caledonia.

Species 280. (Mus. Crosse.)

HELICINA PORPHYROSTOMA. *Hel. testâ subtrochiformi, lævi, albâ; spirâ breviusculâ, anfractibus paucis, convexiusculis; ultimo anfractu medio obtusissimè angulato; aperturâ rubrâ, labio externo tenui, columellâ obliquâ, angustâ, callo ventrali rotundo, rubro.*

THE PORPHYRY-MOUTHED HELICINA. Shell rather trochiform, smooth, white; spire rather short, whorls few, rather convex; last whorl very obtusely angular in the middle; aperture red, outer lip thin, columella oblique, narrow, ventral callus rounded, red.

CROSSE. Journal de Conchyliologie, 1870, p. 245, Pl. VI., f. 6, (1871).

Hab. New Caledonia.

Species 281. (Mus. Crosse.)

HELICINA MORIENSIS. *Hel. testâ globoso-subcompressâ, ferè albâ, aperturâ calloque rubris; spirâ depressâ, subconicâ, anfractibus parvis, paucis, planiusculis; ultimo anfractu compresso, subrotundato; labio externo angustè reflexo, columellâ parvâ, arcuatâ, callo ventrali expanso.*

THE MOUNT-MORI HELICINA. Shell globose, subcompressed, almost white, aperture and callus red; spire depressed slightly conical, whorls small, few, rather flat; last whorl compressed, rather rounded; outer lip narrowly reflected, columella small, arched, ventral callus spread.

CROSSE. Journal de Conchyliologie, 1870, p. 246, fig. 5, Pl. VI., 1781.

Hab. Mount Mori, New Caledonia.

Species 282. (Mus. Brit.)

HELICINA GUNDLACHI. *Hel. testâ parvâ, compressâ, solidiusculâ, pallidè fulvâ, nonnunquam lineis rubris spiraliter cinctâ; spirâ depressâ, subconicâ, ultimo anfractu compresso; aperturâ intùs pallidè aureâ; labio externo vix reflexo; columellâ parvâ.*

GUNDLACH'S HELICINA. Shell small, compressed, rather solid, pale fulvous, sometimes spirally girt with red lines; spire depressed, rather conical, last whorl compressed; aperture pale golden within; outer lip scarcely reflected; columella small.

PFEIFFER. Malak. Bl. iii. 1856.

Hab. Porto Rico.

Species 283. (Mus. Crosse?)

HELICINA UEANA. *Hel. testâ parvâ, compressâ, albidâ, vel flavido radiatâ; spirâ conicâ, anfractibus angustis, subplanulatis; apice aurantio; aperturâ parvâ, semicirculari, flavidâ; labio externo supernè subarcuato medio rectiusculo; columellâ parvâ, brevi, callo ventrali parvo, rotundo, rubro circumcincto.*

THE UEAN HELICINA. Shell small, compressed, whitish, or rayed with yellow; spire conical, whorls narrow, rather flat; apex orange; aperture small, semicircular, yellowish; outer lip arched above, rather straight in the middle; columella small, short, ventral callus small, rounded, circumscribed with red.

MOUSSON. Journal de Conchyliologie, 1871, p. 23, Pl. III., fig. 9.

Hab. Uea.

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

HELICINA.

PLATE XXXII.

Species 284. (Mus. Brit.)

HELICINA CONCINNA. *Hel. testâ parvâ, globoso-conicâ, lævigatâ, solidâ, palilè fulvâ; apice rubro, penultimo anfractu infrà rubro-fasciato, ultimo anfractu subcompresso; aperturâ subauriformi; columellâ parvâ, rectiùsculâ; labio externo angustè rotundo.*

THE NEAT HELICINA. Shell small, globosely-conical, smooth, solid, pale fulvous; apex red, penultimate whorl red-banded below, last whorl subcompressed; aperture somewhat auriform; columella small, rather straight; outer lip narrowly rounded.

GUNDLACH. Malak. Bl. iv. 1857.

Hab. Cuba.

Species 285. (Mus. Brit.)

HELICINA RUGULOSA. *Hel. testâ minutâ, pallidè flavidâ, compressâ, tenuiùsculâ, obliquè fortiter et rudè striatâ; suturâ impressâ; spirâ depressâ, conicâ, anfractibus paucis, parvis, convexis; ultimo anfractu ad peripheriam rotundo, infrà planiùsculo; callo ventrali tenui, depresso; labio externo vix incrassato.*

THE WRINKLED HELICINA. Shell minute, pale yellowish, compressed, rather thin, obliquely strongly and roughly striated; suture impressed; spire depressed, conical, whorls few, small, convex; last whorl rounded at the circumference, a little flattened beneath; ventral callus thin, depressed, outer lip scarcely thickened.

PEASE.——?

Hab. Isl. Tahite, Pacific.

Species 286. (Mus. Brit.)

HELICINA PARVULA. *Hel. testâ minutâ, globoso-subangulatâ, pallidè griseo-subviridi, tenuissimè striatâ, spirâ conicâ, paulò elevatâ, suturâ impressâ; callo ventrali tenuiter granuloso; labio externo tenui, reflexo; columellâ parvâ.*

THE LITTLE HELICINA. Shell minute, globose, somewhat angular, pale greenish-grey, very finely striated, spire conical, a little elevated, suture impressed; ventral callus finely granular; outer lip thin, reflected; columella small.

PEASE.——?

Hab. Isl. Aitiu, Pacific.

Species 287. (Mus. Crosse?)

HELICINA CULMINANS. *Hel. testâ parvâ, depressâ, angulatâ, obliquè striatâ, flavidâ vel carneo-albâ; spirâ depressâ, concexâ, anfractibus paucis, parvis; ultimo anfractu medio carinato, infrà carinam convexo; aperturâ subtrigonâ, labio externo reflexo, supernè paulò flexuoso; columellâ parvâ, callo ventrali planulato, semicirculari.*

THE CULMINATING HELICINA. Shell small, depressed, angular, obliquely striated, yellowish or flesh-white; spire depressed, convex, whorls few, small; last whorl keeled in the middle, convex below the keel; aperture subtrigonal, outer lip reflected, a little flexuous above; columella small, ventral callus flattened, semicircular.

MOUSSON. Journ. de Conch., 1871, p. 26, Pl. III., f. 10.

Hab. Isl. Navao, Pacific.

Species 288. (Mus. Brit.)

HELICINA MUSIVA. *Hel. testâ depressâ, angulatâ, lævigatâ, pallidè fulvâ, supernè et ad angulum maculis rubris arcuatis ornatâ; spirâ brevi, conicâ, anfractibus planulatis; ultimo anfractu infrà medium convexo; callo ventrali lævigato; aperturâ parvâ, labio externo leviter reflexo.*

THE MOZAIC HELICINA. Shell depressed, angular, smooth, pale fulvous, ornamented above and at the angle with red arched spots; spire short, conical, whorls flattened; last whorl convex below the middle; ventral callus smooth; aperture small, outer lip slightly reflected.

GOULD.——?

Hab. Isl. Toxata, Upola, Pacific.

This species is usually found on the leaves of trees.

The specimens of one variety have no markings on the under part of the last whorl.

Species 289. (Mus. Brit.)

HELICINA OCEANICA. *Hel. testâ minutâ, compressâ, lævigatâ, medio angulatâ; supernè lineis undulatis rubris notatâ; aperturâ trigonâ; labio externo tenui, haud reflexo.*

THE OCEANIC HELICINA. Shell minute, compressed, smooth, angular in the middle; marked above with undulating red lines; aperture trigonal; outer lip thin, not reflected.

GOULD.——?

Hab. Isl. Apaiang, Pacific.

More flattened than *Hel. musiva*, with the outer lip not reflected.

Species 290. (Mus. Crosse.)

HELICINA SCHRAMMI. *Hel. testâ parvâ, trochiformi, fusco-corneâ, tenui, tenuiter concentricè striatâ; spirâ conicâ, anfractibus quinque, subelevatis, paulò convexis; ultimo anfractu suprà medium obtusè angulato; columellâ albâ, infrà subcuneatâ; callo ventrali albo, parvo, rotundo; labio externo tenui.*

SCHRAMM'S HELICINA. Shell small, trochiform, horny, brown, thin, finely concentrically striated; spire conical, whorls five, slightly elevated, a little convex; last whorl obtusely angular above the middle; columella white, a little cuneate below; ventral callus white, small, round, outer lip thin.

CROSSE. Journ. de Conch., 1873, p. 251, Pl. III., f. 10.

Hab. Woods of Matouba, Guadaloupe.

Species 291. (Mus. Brit.)

HELICINA MONTANA. *Hel. testâ parvâ, valdè depressâ; fumoso-fuscâ; spirâ depressâ, anfractibus complanatis; ultimo anfractu medio carino tenui crenulato cincto, infrà carinam depresso, circà callum ventralem sulcato; callo ventrali parvo, rotundo; aperturâ angulatâ; columellâ parvâ, obliquâ, labio externo medio acutè angulato.*

THE MOUNTAIN HELICINA. Shell small, much depressed; smoky brown; spire depressed, whorls flattened; last whorl girt in the middle with a thin crenulated keel, depressed below the keel, sulcated round the ventral callus; ventral callus small, round; aperture angular, columella small, oblique, outer lip sharply angular in the middle.

WRIGHT.——?

Hab. Cuba.

This flattish little species is remarkable for having a depression or groove round the ventral callus.

Species 292. (Mus. Brit.)

HELICINA CONSTRICTA. *Hel. testâ crassâ, subdepressâ, angulatâ, stramineâ vel pallidè roseâ, nonnunquam rubrâ interruptim strigatâ; spirâ convexo-conicâ, anfractibus planulatis; ultimo anfractu paulò infrà medium angulato, obtusè carinato, infrà carinam convexo, propè aperturam contracto; aperturâ parvâ, rubrâ, columellâ parvâ, callo ventrali et labio externo vividè rubris.*

THE CONSTRICTED HELICINA. Shell thick, subdepressed, angular, straw-coloured or pale rose, sometimes interruptedly striped with red; spire convex-conical, whorls flattened; last whorl angular a little below the middle, obtusely keeled, convex below the keel; contracted near the mouth; aperture small, red, columella small, ventral callus and outer lip bright red.

PFEIFFER. Proc. Zool. Soc.

Hab. Sandwich Islands.

Species 293. (Mus. Brit.)

HELICINA RIPARA. *Hel. testâ parvâ, globosâ, griseo-albâ; spirâ parvâ, acuminatâ; anfractibus paucis, parvis; ultimo anfractu magno, rotundo; callo ventrali tumido; aperturâ obliquâ, semilunari, columellâ parvâ, ad juncturam cuneatâ; labio externo angusto, reflexo.*

THE RIVER-BANK HELICINA. Shell small, globose, greyish-white; spire small, acuminated; whorls few, small; last whorl large, round; ventral callus tumid; aperture oblique, semilunar, columella small, cuneate at the juncture; outer lip narrow, reflected.

PFEIFFER. ——?

Hab. Banks of the Magdalene, New Granada.

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297*b*

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Sowerby del et lith.

Vincent Brooks Day & Son Imp.

HELICINA.

PLATE XXXIII.

Species 294. (Mus. New York.)

HELICINA CHRYSOCHEILA. *Hel. testâ globoso-pyramidatâ, albâ, tenui, nitenti, minutissimè puncturatâ; spirâ elevatâ, conicâ; anfractibus convexis, obscurè angulatis, infrà subplanulatis; aperturâ magnâ, subovatâ, subaureâ; labio externo reflexo; callo ventrali et labio externo aureis.*

THE GOLDEN-MOUTHED HELICINA. Shell globose, pyramidal, white, thin, shining, very minutely punctured; spire elevated, conical; whorls convex, obscurely angular, rather flattened below; aperture large, subovate, golden; outer lip reflected; ventral callus and outer lip golden.

BINNEY. Am. Journ. Conch., 1869, 13, Pl. XVIII., f. 24.

Hab. Texas; Mexico.

Species 295. (Mus. Brit.)

HELICINA NOVÆ-CALEDONIÆ. *Hel. testâ subglobosâ, pallidè fulvâ, lævigatâ; spirâ elevatâ, anfractibus convexis, supernè declivis; ultimo anfractu inflato, callo ventrali tumido; aperturâ semilunari, labio externo tenui, reflexo.*

THE NEW CALEDONIAN HELICINA. Shell subglobose, pale fulvous, smooth; spire elevated, whorls convex, sloped above; last whorl inflated, ventral callus tumid; aperture semilunar, outer lip thin, reflected.

BAIRD. MS. Mus. Brit.

Hab. New Caledonia.

Species 296. (Mus. Brit.)

HELICINA BREVILABRIS. *Hel. testâ parvâ, globosâ, stramineâ, semipellucidâ; anfractibus rubro unilineatis; spirâ elevatâ, anfractibus paucis, parvis, convexis, apice acuminato; aperturâ infrà medium declivi, labio externo brevi, angusto, rotundo.*

THE SHORT-LIPPED HELICINA. Shell small, globose, straw-coloured, semipellucid; whorls with one red line; spire elevated, whorls few, small, convex, apex acuminated; aperture sloped below the middle, outer lip short, narrow, rounded.

PFEIFFER. —— ?

Hab. Chiappa, Mexico.

Species 297. (Fig. *a*, *b*, Mus. De Burgh.)

HELICINA HELICINIFORMIS. *Hel. testâ globosâ, tenui, vividè viride vel purpureâ; spirâ parvâ, anfractibus paucis, apice acuminato; ultimo anfractu magno, rotundo, infrà subexcavato; columellâ crassâ, rotundâ, medio rotundatim callosâ, infrà aculeatâ; aperturâ magnâ, labio externo lato, rotundo, latè reflexo; operculo corneo, paucispirali.*

THE HELICIFORM HELIX. Shell globose, thin, bright green or purple; spire small, whorls few, apex acuminated; last whorl large, rounded, slightly excavated below; columella thick, rounded, with a rounded callus in the middle, aculeated below; aperture large, outer lip broad, rounded, broadly reflected; operculum horny, spiral, with few whorls.

PFEIFFER. Heliceorum viventium.

Bourciera heliciformis, Pfeiffer.

Hab. —— ?

This is one of two species which differ from the true *Helicinæ* in having a horny spiral operculum. There are several peculiarities in which this agrees with Sp. 302.

Species 298. (Fig. *a*, *b*, Mus. Brit.)

HELICINA COLORATA. *Hel. testâ parvâ, solidâ, luteâ, interdum fuscâ, vel rubro fasciatâ, valdè depressâ, angulatâ; spirâ brevissimâ, anfractibus paucis, minutis; ultimo anfractu magno, supernè convexo, medio obtusè carinato, infrà carinam convexo, callo magno, tumido, columellâ minutâ, indistinctâ, labio externo vix incrassato, medio acutè angulato, infrà ad columellam subemarginato.*

THE COLOURED HELICINA. Shell small, solid, yellow, sometimes brown or banded with red, much

depressed, angular; spire very short, whorls few, minute; last whorl large, convex above, obtusely carinated in the middle, convex below the keel, callus large, tumid; columella very small, indistinct, outer lip scarcely thickened, sharply angular in the middle, slightly emarginated at the columella below.

PEASE. American Journ. of Sci. 1869, Pl. XII., f. 9.
Hab. Aunaa, Pacific.

Species 299. (Mus. Brit.)

HELICINA FLAVESCENS. *Hel. testâ parvâ, solidâ, globoso-trochiformi, flavidâ, spirâ elevatâ, convexâ, anfractibus paucis, convexis, apice acuminato; ultimo anfractu magno, globoso, suprà aperturam elevato; infrà medium obtusè angulato, vix carinato; aperturâ supernè depressâ, declivi; callo ventrali tumido, columellâ parvâ.*

THE YELLOWISH HELICINA. Shell small, solid, globose-trochiform, yellow, spire elevated, convex, whorls few, convex, apex acuminated; last whorl large, globose, elevated above the aperture, obtusely angular below the middle, scarcely keeled; aperture depressed, sloped above, ventral callus tumid, columella small.

PEASE. Shells of the Pacific Islands.
Hab. Mangaia.

Although this and the preceding species are very different in form, there is a strong affinity between the two.

Species 300. (Mus. Brit.)

HELICINA SUPRAFASCIATA. *Hel. testâ angulatâ, subdepressâ, tenui; stramineâ, suprà medium rubro unifasciatâ; spirâ conicâ, anfractibus planulatis; ultimo anfractu, medio acutè angulato, carinato, infrà carinam valdè convexo; aperturâ parvâ, subrhomboideâ, columellâ parvâ, aculeatâ; labio externo angusto, rotundo, suprà et infrà angulum subarcuato.*

THE HIGH-BANDED HELICINA. Shell angular, subdepressed, thin; straw-coloured, single banded with red above the middle; spire conical, whorls flattened; last whorl sharply angular in the middle, keeled, very convex below the keel; aperture small, subrhomboidal, columella small, aculeated; outer lip narrow, round, rather arched above and below the angle.

SOWERBY.
Hab. Australia.

Dr. Baird does not appear to have described this species among those brought by Mr. Brenchley.

Species 301. (Mus. Brit.)

HELICINA LANIERIANA. *Hel. testâ trochiformi, angulatâ, tenui, supernè vividè sulphureâ, infrà pallidâ; spirâ acuminatâ, infrà apicem paulò concavâ, deindè convexâ; ultimo anfractu medio angulato; aperturâ subtrigonâ, albâ, callo ventrali tenui, columellâ aculeatâ; labio externo leviter reflexo, paulò expanso.*

LANIER'S HELICINA. Shell trochiform, angular, thin, bright sulphur above, pale below; spire acuminated, a little concave below the apex, thence convex; last whorl angular in the middle; aperture subtrigonal, white, ventral callus thin, columella aculeated; outer lip lightly reflected, a little expanded.

D'ORBIGNY. Mollusques de Cuba.
Hab. Cuba.

This is one of the species that we failed to identify in the Thesaurus Monograph.

Species 302. (Mus. Brit.)

HELICINA FRASERI. *Hel. testâ globosâ, subdepressâ, aurantiâ, spirâ parvâ, anfractibus paucis; ultimo anfractu magno, globoso-subdepresso; aperturâ ovatâ; labio externo rotundo; columellâ crassâ, infrà retrorsim aculeatâ; callo ventrali parvo; operculo corneo, pauci-spirali.*

FRASER'S HELICINA. Shell globose, subdepressed, orange, spire small, whorls few; last whorl large, globose-subdepressed; aperture ovate; outer lip rounded; columella thick, aculeated backwards below; ventral callus small; operculum horny, spiral, with few whorls.

PFEIFFER. (Bourciera) Heliceorum viventium.
Hab. Cuenca.

The second species of this interesting genus, or subgenus, differs from the first in having a more depressed form, a more oval and less oblique mouth, and less rounded callus.

303*

304 a

304 b

305 a

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305 c

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HELICINA.

PLATE XXXIV.

Species 303. (Fig. *a*, *b*, Mus. Mousson.)

HELICINA TECTIFORMIS. *Hel. testâ trochiformi, subdepressâ, medio angulatâ et carinatâ, suprà carinam spiraliter impresso-striatâ, aurantiâ; spirâ subdepressâ, anfractibus convexiùsculis; ultimo anfractu infrà carinam lævigato, convexo; aperturâ obliquè subquadratâ, columellâ obliquâ, callo ventrali tenui.*

THE ROOF-SHAPED HELICINA. Shell trochiform, subdepressed, angular and keeled in the middle, spirally impressed-striated, orange above the keel; spire depressed, whorls rather convex; last whorl smooth below the keel, convex; aperture obliquely subquadrate, columella oblique; ventral callus thin.

MOUSSON. Journal de Conchyliologie, 1870, p. 199, Pl. VIII., f. 7.

Hab. Viti Islands.

Species 304. (Mus. Crosse.)

HELICINA LIFOUANA. *Hel. testâ subglobosâ, pallidè cinnamomeâ, carneâ; spirâ convexâ, anfractibus parvis, apice obtuso, pallido; ultimo anfractu obscurè angulato, infrà valdè convexo, callo ventrali lato, luteo, tumido; aperturâ parvâ, obliquè semilunari, labio externo angusto, rotundo, supernè depresso.*

THE LIFOU HELICINA. Shell subglobose, pale cinnamon, fleshy; spire convex, whorls small, apex obtuse, pale; last whorl obscurely angular, very convex below; ventral callus broad, yellow, tumid; aperture small, obliquely semilunar, outer lip narrow, round, depressed above.

CROSSE. Journ. de Conch., 1869, p. 25, Pl. II., f. 5.

Hab. Lifou, New Caledonia.

Species 305. (Fig. *a*, *b*, Mus. ——? Copied.)

HELICINA MARIEI. *Hel. testâ depressâ, griseo-fulvâ, subangulatâ, ad angulum suturamque maculis rubris rhomboideis notatâ; spirâ depressâ, anfractibus planulatis; ultimo anfractu lato, compresso; aperturâ obliquâ; columellâ parvâ, callo ventrali, tenui; labio externo angusto, rotundo.*

MARIE'S HELICINA. Shell depressed, fulvous grey, slightly angular, marked at the angle and suture with red rhomboidal spots; spire depressed, whorls flattened; last whorl wide, compressed; aperture oblique; columella small, ventral callus thin; outer lip narrow, rounded.

CROSSE. Journ. de Conch., 1870, p. 245, Pl. XIII., f. 9.

Hab. New Caledonia.

Species 306. (Mus. Mousson.)

HELICINA INTERNA. *Hel. globoso-subtrochiformi, tenui, lævigatâ, pallidè stramineâ, fasciâ rubrâ angustâ paulò suprà medium cinctâ; spirâ conicâ, elevatâ; anfractibus paulò convexis; callo ventrali tenui, expanso, pallidè roseo-fulvescenti.*

THE INTERNAL HELICINA. Shell globose-subtrochiform, thin, smooth, pale straw, girt with a narrow red band a little above the middle; spire conical, elevated; whorls a little convex, ventral callus thin, expanded, pale buffish rose.

MOUSSON. Journal de Conchyliologie, 1870, p. 201.

Hab. Viti and Mango Islands.

Species 307. (Mus. Mousson.)

HELICINA SEMPERI. *Hel. testâ solidâ, subdepressâ, lævigater, pallidè rubescenti irregulariter flammis maculisque rubris notatâ; spirâ depressâ, apice obtuso, anfractibus convexiùsculis, ultimo anfractu medio lato, infrà medium convexo; callo ventrali tumidiùsculo, albo; aperturâ depressâ, labio externo incrassato, rotundo.*

SEMPER'S HELICINA. Shell solid, subdepressed, smooth, pale reddish, irregularly marked with red flames and spots; spire depressed, apex obtuse, last

whorl broad in the middle, rather convex below the middle; ventral callus rather tumid, white; aperture depressed, outer lip thickened, rounded.

MOUSSON. Journal de Conchyliologie, 1870, p. 204, Pl. VIII., f. 8.

Hab. Oneata Island.

Species 308. (Fig. *a*, *b*, Mus. Græffe.)

HELICINA PAZI. *Hel. testâ parvâ, subglobosâ, pallidè fuscâ; spirâ subdepressâ, anfractibus paucis, apice obtuso; ultimo anfractu obtusissimè angulato; aperturâ subtrigonâ; labio externo reflexo, supernè declivi, medio obscurè angulato; callo ventrali crassiùsculo, albescenti; margine recto, columellâ brevissimâ.*

PAZ'S HELICINA. Shell small, subglobose, pale brown; spire rather depressed, whorls few, apex obtuse; last whorl very obtusely angular; aperture subtrigonal, outer lip reflected, sloped above, obscurely angular in the middle; ventral callus rather thick, whitish with straight margin; columella very short.

HILDAGO. Journal de Conchyliologie, 1865.

Hab. Gambier Islands.

Species 309. (Mus. Crosse? Copied.)

HELICINA ANNAAENSIS. *Hel. testâ depressâ, parvâ, fumoso-flavidâ; spirâ depressâ, obtusâ, anfractibus paucis; ultimo anfractu depresso, lato, medio subangulato; aperturâ parvâ, semilunari, labio externo albo, incrassato; callo ventrali tumido, expanso; columellâ brevissimâ, crassâ.*

THE ANNAA HELICINA. Shell depressed, small, smoky yellow; spire depressed, obtuse, whorls few; last whorl depressed, broad, rather angular in the middle; aperture small, semilunar, outer lip white, thick, ventral callus tumid, expanded; columella very short, thick.

CROSSE. Journal de Conchyliologie, 1869, p. 67, Pl. V., f. 6.

Hab. Isl. Annaa, Pacific.

Species 310. (Mus. ——? Copied.)

HELICINA FISCHERIANA. *Hel. testâ depressâ, angulatâ, carinatâ, lineis elevatis spiralibus distantibus, validis striatâ; pallidè fulvâ; spirâ depressâ, conicâ; ultimo anfractu medio validè carinato, infrà carinam convexo, callo ventrali parvo, albo; aperturâ obliquè rhomboideâ, angustâ; labio externo reflexo, acuto; columellâ parvâ, rectiùsculâ, angulatâ.*

FISCHER'S HELICINA. Shell depressed, angular, carinated, striated with raised spiral, strong lines; pale fawn; spire depressed, conical; last whorl strongly keeled in the middle, convex below the keel, ventral callus small, white; aperture obliquely rhomboidal, narrow; outer lip reflected, sharp; columella small, rather straight, angular.

MONTROUZIER. Journal de Conchyliologie, 1863, p. 76, 171, Pl. V., f. 3.

Hab. ——?

HELICINA.

	Plate.	Species.
acuminata ——?	VI.	44
acutissima, *Sowerby*	XXVIII.	246
Adamsiana, *Pfeiffer*	III. IX.	23, 72
adspersa, *Pfeiffer*	X.	81
affinis, C. B. Adams	IV.	31
agglutinans, *Sowerby*	XXV.	220
alata, *Menke*	XIII.	107
albo-cincta, *Hombrigh*	XXIII.	204
albo-labris, C. B. Adams	I.	6
albo-labris, *Hombrigh*	XXIII.	197
alboviridis, *Wright* ——?	XXIV.	214
alta, *Sowerby*	XVI.	142
Ambeliana, De Roissy	XVII.	149
amœna, *Pfeiffer*	XX.	177
ampliata, *C. B. Adams*	X.	82
ampullina, Ferrussac	IV.	30
Andamanica, Benson	XXI.	187
angulata, *Sowerby*	VII.	57
Annaaensis, *Crosse* (209 by error)	XXXIV.	308
Antillarum, *Sowerby*	XX.	176
Antoni, *Pfeiffer*	XIX.	165
arenicola, *Morton*	XXVIII.	250
articulata, *Pfeiffer*	XXVI.	236
aruans, *Pfeiffer*	XXVII.	239
aurantia, *Gray*	XX.	174
aurantio-viridis, *Sowerby*	XI.	97
aureola, *Ferrusac*	XIV.	124
Bastidiana, *Poey*	VIII.	61
Bayhamensis, *Poey*	II.	11
Behaniana, *Pfeiffer*	V.	37
bellula, *Gundlach*	X.	83
benigna, *Crosse*	XXXI.	279
berylina, *Gould*	XI.	91
Beskii, *Pfeiffer*	XXVII.	243
bicolor, *Pfeiffer*	XXVII.	237
Blandiana, Gundlach	VI.	44
Borneensis, *Martens*	XXX.	267
Brandtii, Pfeiffer	VIII.	63
Braziliana, *Gray*	XXVI.	228
Braziliensis, *Gray*	XI.	95
Brenchleyi, *Baird*	XXX.	273
brevilabris, *Pfeiffer*	XXXIII.	296
Briarea, *Poey*	II.	12
Brownii, *Gray*	II.	9
bulla, *Pfeiffer*	XXV.	224
Caledoniæ, *Baird*	XXXIV.	295
calida, *Weinland*	IX.	67
callosa, *Poey'*	XV.	134
capillacea, *Pfeiffer*	XV.	136
carinata, *Orbigny*	VII.	51
carinifera, *Orbigny*	XXVII.	241
carocolla, *Moricand*	XXIV.	209
castanea, *Guilding* ——?	XXV.	226
Cataliniana, *Pfeiffer*	II.	10
Chiappensis, *Pfeiffer*	XIII.	110
Chittyana, *Pfeiffer*	XII.	99
chrysochasma, *Poey*	VIII.	64
chrysocheila, *Binney*	XXXIII.	294
chrysostoma, *Shuttleworth*	III.	19
ciliata, Poey	II.	12
cinctilla, *Shuttleworth*	XXI.	182
cingulata, *Gray*	XXXI.	277
citrina, *Grateloup*	XXV.	219
citrina, Pfeiffer	XXII.	199
citrinolabris, C. B. Adams	I.	6
coccinostoma, *Morelet*	XX.	173
colorata, *Pease*	XXXIII.	298
Columbiana, *Philippi*	XVI.	139
columellaris, *Poey*	VI.	44
concentrica, *Pfeiffer*	VII.	54
concinna, *Gundlach*	XXXII.	284
conica, Pfeiffer	XV.	133
conoidea, *Pfeiffer*	VI.	49
consanguinea, C. B. Adams	I.	6
constellata, Morelet	XXIV.	211
constricta, *Pfeiffer*	XXXII.	292
continua, *Gundlach*	XVII.	146
convexa, *Pfeiffer*	X.	84
Cordilleræ, *Sallé*	XVI.	143
cornea, *Sowerby*	XIX.	171
coronula, *Shuttleworth*	IX.	76
corrugata, *Pease*	XXIII.	198
costata, *Gray*	XII.	106
crassa, D'Orbigny	II.	15
crassicostata, *Sowerby*	IV.	33
crassilabris, *Philippi*	XII.	98
Crossei, *Semper* ——?	XVIII.	158
culminans, *Mousson*	XXXII.	287

	Plate.	Species.
Cumingii, *Pfeiffer*	VIII.	62
declivis, *Gundlach*	IX.	74
denticulata, *Pfeiffer*	XVIII.	157
depressa, *Gray*	XIV.	115
diaphana, *Pfeiffer*	XXVIII.	251
dilatata, Poey	XII.	103
dissimulans, *Poey*	I.	1
Draytonensis, *Pfeiffer*	XXX.	266
dubiosa, *C. B. Adams*	IV.	28
Dysoni, *Pfeiffer*	XXIX.	258
egregia, *Pfeiffer*	XVIII.	159
electrina, *Pfeiffer*	V.	36
elegans, *D'Orbigny*	XV.	133
elegantula, *Pfeiffer*	XV.	127
elongata, *D'Orbigny*	XVI.	137
erythræa, *Wright* —— ?	XXIV.	213
excavata, *Pfeiffer*	III.	22
exacuta, *Poey*	VI.	48
exserta, *Gundlach*	IV.	24
fasciata, *Lamarck*	IX.	73
fasciata, Spix	XXI.	186
festa, *Gundlach*	VI.	46
festiva, *Gray*	I.	4
Fischeriana, *Montrouzier*	XXXIV.	310
flammea, *Quoy*	XXVI.	233
flava, Spix	XXI.	186
flavescens, *Pease*	XXXIII.	299
flavida, *Menke*	XVI.	145
Forbesiana, *Pfeiffer*	XXVIII.	254
fossulata, Poey	II.	12
foveata, Pfeiffer	XXIX.	258
Fraseri, *Pfeiffer*	XXXIII.	302
fulgora, Gould	XXVI.	229
fulva, *Pfeiffer*	XI.	89
fumigata, *Sowerby*	XXVIII.	252
Funckii, *Pfeiffer*	XVII.	152
fuscula, *Gundlach* —— ?	XXIV.	212
Ghiesbrighti, *Pfeiffer*	XXVII.	242
glabra, Gould	IX.	68
globosa, *Gray*	III.	17
globulosa, *Orbigny*	XVIII.	154
gonocheila, *Pfeiffer*	XXIII.	201
Gossei, Pfeiffer	II.	14
Gouldiana, Pfeiffer	VIII.	60
Guadaloupensis, *Sowerby*	XX.	179
granum, *Pfeiffer*	XXV.	225
gratiosa, *Pfeiffer*	XII.	105
gratulata, *Blandford*	XI.	96
Grayana, Pfeiffer	XII.	103
Guildingiana, Pfeiffer	IX.	65
Gundlachi, *Pfeiffer*	XXXI.	282
Hanleyana, *Pfeiffer*	XXIX.	256
hæmastoma, *Moricand*	XXV.	217
Heloisæ, *Sallé*	XIII.	111
helicinæformis, *Pfeiffer*	XXXIII.	297
hirsuta, C. B. Adams	II.	9
Hjalmarsoni, *Pfeiffer*	XXV.	223
Hollandii, C. B. Adams	II.	9
Hornbeckii, Philippi	V.	42
humilis, *Hombrigh*	XXIII.	205
Idæ, *Pfeiffer*	XXII.	192
inæqualis, *Pfeiffer*	XIV.	123
inconspicua, *Pfeiffer*	XIX.	170
incrustata, *Gundlach*	IX.	70
interna, *Mousson*	XXXIV.	306
intusplicata, *Pfeiffer*	IV.	25
Jamaicensis, *Sowerby*	XIX.	163
Japonica, *A. Adams*	XXIX.	262
Jeannereti, Pfeiffer	I.	3
Josephinæ, *C. B. Adams*	XXIV.	210
jucunda, *Gundlach*	XXV.	218
jugulata, *Poey*	VI.	47
Julii, *Baird*	XXX.	272
Keatii, *Pfeiffer*	X.	79
Kieneri, *Pfeiffer*	XVIII.	160
laciniosa, *Mighaels*	IX.	69
læta, *Crosse*	XXXI.	278
Lanieriana, *D'Orbigny*	XXXIII.	301
lazarus, *Sowerby*	XXIV.	208
lens, *Lea*	XXVIII.	248
Lifouana, *Crosse*	XXXIV.	304
Lindeni, *Pfeiffer*	XIII.	112
lineata, *C. B. Adams*	XIV.	116
lirata, *Pfeiffer*	XIV.	121
littoralis, *Gundlach*	IV.	32
littoricola, *Gundlach*	XV.	132
Lleana, *Mousson*	XXXI.	283
Louisadensis, *Forbes*	XXIX.	257
luteo-apicata, Poey	VIII.	60
lutea, *Lesson*	XXV.	222
Macgillivrayi, *Pfeiffer*	XXII.	193
macilenta, *C. B. Adams*	I.	8
maculata, *Sowerby*	XXVI.	227
maculosa, Newcombe	V.	30
major, *Gray*	II.	14
Maugeriæ, *Gray*	XXIII.	199
Marchionessa, Hombrigh	XXIII.	195
Mariei, *Crosse*	XXXIV.	305
maxima, *Sowerby*	III.	21
megastoma, *C. B. Adams*	IV.	31
merdigera, *Sallé*	XVI.	140
Merguiensis, Pfeiffer	XXI.	187

	Plate.	Species.
microstoma, *C. B. Adams*	I.	7
miltocheila, *Crosse*	XXXI.	275
minima, *D'Orbigny*	V.	35
minuta, *Sowerby*	XIX.	166
modesta, *Pfeiffer*	XXIX.	259
Moquiniana, *Recluz*	XXVI.	231
Moriensis, *Crosse*	XXXI.	281
montana, *Wright*	XXXII.	291
Mouensis, *Crosse*	XXXI.	281
Mouhoti, *Pfeiffer*	XXVI.	230
multicolor, *Gould*	XIX.	172
multifasciata, *Baird*	XXX.	271
multistriata, Velasques	V.	33
musiva, *Gould*	XXXII.	288
neritella, *Lamarck*	XX.	180
Nicholetti, *Shuttleworth*	XIII.	109
Nicobarica, *Philippi*	XXI.	187
nitida, *Pfeiffer*	IX.	68
nobilis, C. B. Adams	II.	14
Nodæ, *Gundlach*	XI.	93
Norfolkensis, *Pfeiffer*	XXI.	181
notata, *Sallé*	XXXI.	276
Novæ-Caledoniæ, *Baird*	XXXIII.	295
occidentalis, *Guilding*	XXI.	183
occulta, *Sowerby*	XXIX.	260
oceanica, *Gould*	XXXII.	289
ochracea, *Poey*	I.	5
oleosa, *Pfeiffer*	XXX.	269
opima, *Shuttleworth*	XII.	102
orbiculata, *Sowerby*	XXIX.	261
Orbignyi, *Pfeiffer*	XXVIII.	253
oresigena, *D'Orbigny*	V.	41
ornata? Sowerby	X.	81
Oweni, Pfeiffer	XX.	173
Oweniana, *Pfeiffer*	XVI.	144
oxyrhinca, *Crosse*	XXVI.	232
oxystoma, Sowerby	XXIV.	207
oxytropis, *Gray*	XXIV.	207
pagoda, Velasquez	XXIV.	212
palliata, *C. B. Adams*	I.	6
pallida, *Gould*	XXVIII.	247
pannucea, *Morelet* —— ?	XIII.	108
Paraensis, *Pfeiffer*	XVI.	141
parva, *Sowerby*	XXIV.	215
parvula, *Pease*	XXXII.	286
Pazi, *Hildago* (308 by error)	XXXIV.	309
pellucida, *Sowerby*	XIII.	113
perispherica, —— ?	X.	83
Petitiana, *Orbigny*	XII.	100
petrosa, *Gundlach*	XV.	135
Phasianella, *Pfeiffer*	XXX.	270
picta, Ferrussac	IX.	73
pictella, *Pfeiffer*	XXX.	268
pilosa, Sowerby	XXIII.	203
pisum, *Philippi*	X.	78
platycheila, *Mühlfeldt*	XI.	87
plicatula, *Pfeiffer*	XIV.	119
Poeyi, *Pfeiffer*	X.	80
polita, *Sowerby*	XXII.	189
politula, *Poey*	IX.	66
polychroa, *Pfeiffer*	XVII.	153
porphyrostoma, *Crosse*	XXXI.	280
pulchella, *Gray*	XII.	103
pulcherrima, *Lea*	II., III.	15
purpureo-flava, Morelet	XVII.	152
pyramidalis, *Sowerby*	VI.	45
pyrrhostoma, Menke	XX.	174
Reeviana, *Pfeiffer*	XXVI.	235
regina, *Morelet*	V.	38
remota, *Poey*	XVII.	148
repanda, *Pfeiffer*	X.	86
reticulata, *Pfeiffer*	XXII.	188
retracta, *Poey*	V.	39
reubella, Wright	XXIV.	213
ripara, *Pfeiffer*	XXXII.	293
rhamphostyla, *Pfeiffer*	III.	18
rhodostoma, *Gray*	VII.	53
Rhori, *Pfeiffer*	XXXII.	195
rhyncostoma, *Shuttleworth*	XXVII.	240
Rosaliæ, *Pfeiffer*	XXVII.	238
rostrata, *Morelet*	XVIII.	155
rotella, *Sowerby*	XII.	104
rotellina, Potiez et Michaud	V.	42
rotelloidea, *Mighaels*	IX.	75
rotunda, *D'Orbigny*	IV.	29
rubella, *Pfeiffer*	V.	34
rubella, Wright	XXIV.	213
rubicunda, *Gundlach*	XV.	130
rubra, Pfeiffer	I.	2
rubromarginata, *Gundlach*	VIII.	59
rudis, *Pfeiffer*	XIX.	169
rufa, Pfeiffer	XX.	179
rugosa, *Pfeiffer*	XIV.	120
rugulosa, *Pease*	XXXII.	285
rupestris, *Pfeiffer*	XV.	131
Sagra, Orbigny	I.	3
Sagraiana, *Orbigny*	I.	3
Salleana, *Pfeiffer*	XXII.	190
Salvini, Tristram	XVIII.	155
Sandwichensis, *Souleyet*	XIX.	162
sanguinea, *Pfeiffer*	XX.	178
saturalis, Gundlach	X.	83

	Plate.	Species.
Schrammi, *Crosse*	XXXII.	290
scitula, Wood	XII.	103
scopularum, *Morelet*	VI.	43
semilirata, *Pfeiffer*	XII.	107
semistriata, *Sowerby*	XIV.	117
Semperi, *Mousson*	XXXIV.	307
Shanghaensis, *Pfeiffer*	XXVI.	234
silacea, *Morelet*	II.	13
similis, *Sowerby*	XX.	175
sinuosa, *Pfeiffer*	III.	20
Sloanei, *D'Orbigny*	VIII.	60
solidula, *Gray*	XXVII.	245
solitaria, *C. B. Adams*	IX.	65
sordida, King	XI.	94
Sowerbyana, *Pfeiffer*	XXIII.	202
spectabilis, *Gundlach*	XVII.	147
sphæroida, *Pfeiffer*	X.	77
spinifera, *Pfeiffer*	VII.	55
Sprucei, *Pfeiffer*	V.	40
stellata, *Velasquez*	XXIV.	216
Straminea, Moricand	VI.	48
striata, *Lamarck*	XXII.	191
striatula, *Sowerby*	IX.	71
strigata, *Baird*	XXX.	274
suavis, *Pfeiffer*	VII.	56
subglobosa, *Poey*	XIX.	164
subconica, *Sowerby*	XXIX.	263
subfusca, *Menke*	V.	42
sublævigata, *Pfeiffer*	XXIX.	265
submarginata, *Gray*	I.	2
subovalis, *Sowerby*	XXI.	184
substriata, *Gray*	XI.	94
subturrita, *Sowerby*	VI.	50
succinea, *Pfeiffer*	IV.	26
supra-fasciata, *Sowerby*	XXXIII.	300
suturalis, *Martens*	VII.	58
tæniata, *Quoy*	X.	85
Tamsiana, *Pfeiffer*	XVIII.	161
Tankervillii, *Gray*	XII.	101
Tayloriana, *Sowerby*	XXIII.	206
tecta, *Sowerby*	XXVII.	244
tectiformis, *Mousson*	XXXIV.	303
tenuilabris, *Sowerby*	XI.	92
Tilei, *Pfeiffer*	XI.	88
titanica, *Poey*	IV.	27
tricarinata, *Sowerby*	XV.	129
tridens, *Shuttleworth*	XV.	125
trochiformis, *Sowerby*	VII.	52
trochlea, *Gould*	XV.	128
trochulina, *D'Orbigny*	XVI.	138
tropica, Chemnitz	XVII.	149
trossula, Moricand	XVI.	145
turbinata, *Weigman*	VIII.	63
turbinella, *Pfeiffer*	XVII.	150
uberta, *Gould*	XXIII.	196
Ueana, *Mousson*	XXXI.	283
undulata, *Pfeiffer*	XV.	126
unguiculata, Poey	V.	38
unicarinata, *Sowerby*	XIX.	168
unicolor, Potiez et Michaud	XI.	87
unidentata, *Pfeiffer*	XIV.	122
unifasciata, *Gray*	XXVIII.	249
variabilis, *Wagner*	XXI.	186
variegata, Orbigny	X.	81
velutina, *Poey*	III.	16
verecundia, ——?	XXVIII.	254
vernalis *Morelet*	XVIII.	156
vestita, *Guilding*	XIX.	167
villosa, *Anthony* ——?	XXIII.	203
vinosa, *Shuttleworth*	XIV.	118
virens, *Pfeiffer*	XXII.	194
virginea, *Lea*	IV.	30
viridis, *Lamarck*	XI.	90
viridis, Sowerby	XI.	97
Yorkensis, *Pfeiffer*	XXIX.	264
Yunguensis, ——?	X.	83
Zebriolata, *Pfeiffer*	XXVI.	229
zephyrina, *Duclos*	XVII.	149
Zoæ, *Pfeiffer*	XXI.	185
Zonata, Sowerby	XXI.	186

ERRATA.

For Annaaensis, 309, and Pazi, 308, text, *read* Annaaensis, 308, and Pazi, 309.

„ *minuta*, Pl. XXVIII. sp. 255, „ Oparæ, *Sowerby*.

„ Proc. Zool. Soc., 1842 (sp. 255) „ Conchologica Iconica, Pl. XXVIII.

„ pyramidata, Pl. VI. sp. 45 (text) „ pyramidalis.

Species Cordilleræ, globulosa, and laciniosa, having been repeated, the following omitted species w take their numbers, viz.—candeana, *Orbigny*, sp. 114; dentigera, *Orbigny*, sp. 151; oxystoma, *Gray*, sp. 2

MONOGRAPH

OF THE GENUS

PANOPÆA.

"Thy wondrous works, Thy mighty power declare,
Which yet faint sketches of Thy glory are."—*Trench.*

Sowerby del et lith

Vincent Brooks Day & Son Imp

PANOPÆA.

PLATE I.

Genus PANOPÆA *Ménard.*

Testa bivalvi, bimusculosa, utrinque hians, lævigata, vel concentricè rugata, epidermide induta, cardine medio utrâque valvâ unidentato; ligamento conspicuo, externo; impressione pallii posticè profunde sinuato.

Shell bivalve, bimuscular, gaping at both ends, smooth or concentrically wrinkled, covered with an epidermis, hinge with one tooth in the middle in each valve; ligament conspicuous, external; palleal impression with a deep sinus.

Some of the species included in this monograph are separated under the name *Glycimeris* in the work of Messrs. Adams. The shells of both genera are stated to be similar, excepting that in PANOPÆA the palleal impression is interrupted. The animals, however, differ in the two genera, the siphons being separated *near* the extremity in *Panopœa* and united *to* their extremity in *Glycimeris*. It would be impossible to decide absolutely on the validity of this distinction, which is probably one of *degree*, and therefore of specific value only, without being able to examine specimens of the siphonal integuments of every species. PANOPÆA, SPENGLERI, = *Norvègica* and its near ally *P. Middendorfii* are quite northern in their range, reaching only the northernmost parts of Great Britain, while the other species included by Messrs. Adams in the genus *Glycimeris* are tropical or southern, their range extending to South Australia.

Species 1. (Mus. Brit.)

PANOPÆA ALDROVANDI. *Pan. testâ magnâ, altâ, subrhomboideâ, rectiùsculâ, crassâ, profundâ; latere antico breviùsculo, acuminato; perobliquè truncato; margine dorsali recto; medio planiùsculo, umbonibus ovatis; latere postico lato, ad terminum subarcuato, latè truncato, margine dorsali concavo.*

ALDROVAND'S PANOPÆA. Shell large, elevated, subrhomboidal, rather straight, thick, deep; anterior side rather short, acuminated; very obliquely truncated; dorsal margin straight; middle rather flat, umbones oval; posterior side broad, a little arched at the end, broadly truncated, dorsal margin concave.

LAMARCK. Anim. sans Vert.

Panopœa glycimeris, Deshayes.

Panopœa rugosa, Valenciennes.

Hab. Mediterranean.

The three large species of this genus are thus distinguished, namely, *Panopœa Aldrovandi* is broad and deep, short and obliquely truncated in front; *Panopœa Faujasii* is narrower, nearly equilateral, and not at all oblique; *Panopœa attenuata* is narrow, long, and curved posteriorly, broad and reflected anteriorly.

Sowerby, del et lith.

Vincent Brooks Day & Son, Imp

PA'NOPÆA.

PLATE II.

Species 2. (Mus. Brit. and Lamarck.)

PANOPÆA FAUJASII. *Pan. testâ magnâ, crassiùsculâ, inflatâ, altâ, subæquilaterali, lævigatâ, subrugatâ, latere antico breviusculo, rotundo, alto; medio subplanulato, umbonibus magnis, prominentibus; latere postico angustiusculo, elongatiusculo, ad terminum arcuatim elevato, truncato; margine dorsali convexo.*

FAUJAS'S PANOPÆA. Shell large, rather thick, inflated, deep, rather equilateral, smooth, somewhat wrinkled, anterior side rather short, rounded, deep; middle rather flat, umbones large, prominent; posterior side rather narrow and lengthened, raised at the end in a curve, truncated; with the dorsal margin depressed convex.

MENARD (de St. Croix). Fossiles d'Italie.

Hab. ——? Recent.

M. Valenciennes remarks in his monograph in the Illustrations Conchyologiques of Chémn., that the recent shell figured in Plate II. of his work and copied in ours, is wrongly referred to this species. He states that it is one of two specimens in the collection of Lamarck in the Paris Museum, and that it is only a variety of *Panopœa Aldrovandi*. Now it must be observed, first, that both his shell and one in the British Museum differ in several respects from *P. Aldrovandi*, and secondly that in describing *P. Faujasii* as a fossil only M. Valenciennes points out the same differences between the two species, as those which exist between the recent shells. *P. Aldrovandi* is narrow and pointed at the anterior side, and broad truncated at the posterior, while the reverse is the case with *P. Faujasii*.

February, 1873.

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Sowerby del et lith

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PANOPÆA.

PLATE III.

Species 3. (Mus. Paris.)

PANOPÆA ATTENUATA. *Pan. testâ elongatâ, angustâ, lævigatâ; latere antico latiori, obliquè truncato, margine dorsali elevato; medio compresso, umbonibus parvum prominentibus, margine ventrali recto; latere postico attenuato, ad terminum arcuato, valdè sursum acclivi, termino obliquè truncato, margine dorsali depresso, arcuato.*

THE ATTENUATED PANOPÆA. Shell elongated, narrow, smooth; anterior side wider, obliquely truncated, dorsal margin elevated; middle compressed, umbones little prominent, ventral margin straight; posterior side attenuated, arched at the end, strongly sloped upwards, end obliquely truncated, dorsal margin depressed, arched.

SOWERBY.

Panopœa Australis, Valenciennes, not Sowerby.

Hab. Port Natal.

We have no reason to suppose that this shell is identical with the *P. australis* of Sowerby, or that the last mentioned species ever attains a larger size than the one represented in Plate VI. of this monograph. M. Valenciennes having received a drawing of a smaller specimen in the Cumingian Cabinet by Mr. Sowerby, imagined it to represent the young of his gigantic species; an opinion which we cannot share. *Panopœa attenuata* differs from the two preceding species in shape and proportions, as will be seen from the figure which we have copied.

February, 1873.

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Sowerby del et lith

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PANOPÆA.

PLATE IV.

Species 4. (Mus. Brit.)

PANOPÆA CANCELLATA. *Pan. testâ ovato-oblongâ, fulvâ, tenuiusculâ, utrinquè paulò hianti; latere postico lævigato, subrostrato, depresso, subarcuato, margine dorsali depresso, concavo, termino angusto, rotundo, margine ventrali sursum declivi; medio convexo, margine ventrali rectiusculo; latere antico inflato, rugis concentricis et striis radiatis cancellato, ad terminum rotundo.*

THE CANCELLATED PANOPÆA. Shell ovate-oblong, fulvous, rather thin, a little gaping at both ends; posterior side smooth, subrostrate, depressed, slightly arched, with the dorsal margin depressed, concave, end narrow, rounded, ventral margin sloped upwards; middle convex, ventral margin rather straight; anterior side inflated, cancellated with concentric wrinkles and radiating striæ, rounded at the end.

SOWERBY.

Hab. Australia.

This shell gapes much less than the other species, and is remarkable for the sculpture of its anterior side, which has regular concentric ridges crossed by radiating striæ.

Species 5. (Mus. Brit.)

PANOPÆA GENEROSA. *Pan. testâ latâ, brevi, subdonaciformi, crassâ, laminatim rugatâ; latere posticò brevi, subquadrato, lato, ad terminum latissimè hianti, truncato, medio planulato, margine ventrali rectiusculo; latere antico subtrigono vel subacuminatim rotundo.*

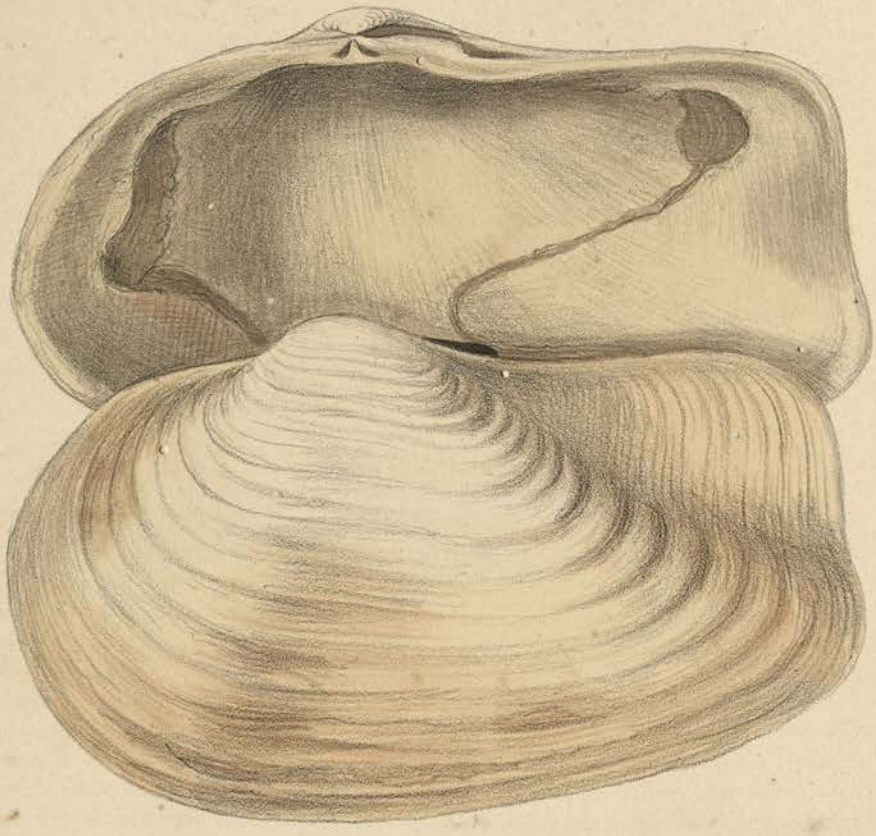
THE GENEROUS PANOPÆA. Shell broad, short, rather wedge-shaped, thick, laminately wrinkled; posterior side short, subquadrate, broad, very widely gaping, and truncated at the end; middle flattish, ventral margin rather straight; anterior side subtrigonal, or subacuminately rounded.

GOULD. Shells of United States Expedition? MS. Mus. Brit.

Hab. ——?

Remarkable for its almost trigonal form, and very broad posterior truncation and wide gape.

February, 1873.



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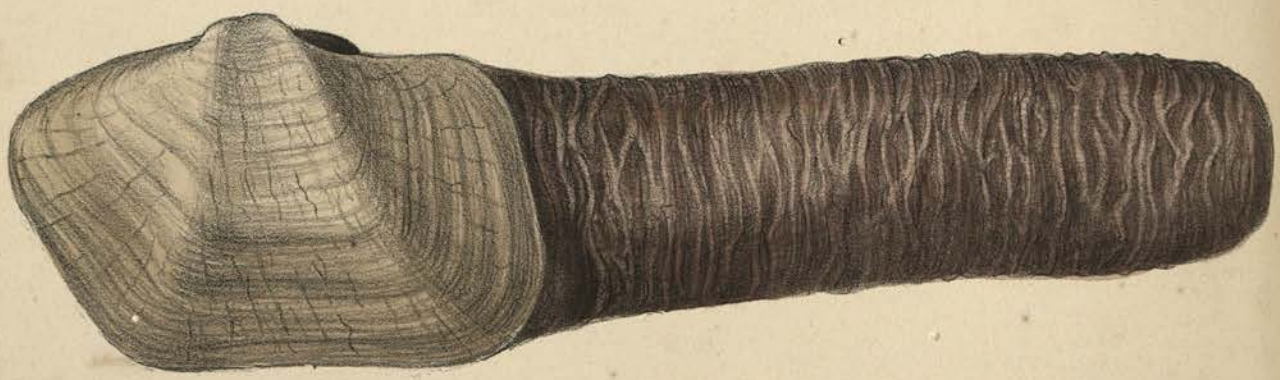

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Sowerby del et lith.

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PANOPÆA.

PLATE V.

Species 6. (Mus. Brit.)

PANOPÆA SOLANDRI. *Pan. testâ oblongâ, rectiùsculâ, solidâ, leviter concentricè rugatâ, inæquilaterali; latere postico angustiùsculo, elongato, subangulato, truncato; medio planiusculo; latere antico brevi, lato, rotundo.*

SOLANDER'S PANOPÆA. Shell oblong, rather straight, solid, slightly concentrically wrinkled, inequilateral; posterior side rather narrow, elongated, rather angular, truncated, rather flat in the middle; anterior side short, wide, rounded.

GRAY. MS. Chem. Illus. Conch. pl. 11. f. 2 a.

Hab. New Zealand.

Species 7. (Mus. Jeffreys.)

PANOPÆA SPENGLERI. *Pan. testâ crassâ, oblongo-subquadratâ, subrugosâ, epidermide fusco-subviridi indutâ; latere postico radiatim angulato, ad terminum truncato, medio depresso, complanato; latere antico brevi, subrotundo, subrugato; umbonibus subquadratis, medio depressis.*

SPENGLER'S PANOPÆA. Shell thick, oblong-subquadrate, subrugose, covered with a greenish-brown epidermis; posterior side radiately angular, truncated at the end, depressed in the middle, flattened; anterior side short, rather round, rather rough; umbones squarish, depressed in the middle.

VALENCIENNES. Arch. Mus. Ul. pl. 5, fig. 3, a, b.

Panopœa Norvegica, Sowerby.

Hab. Norway, North of Scotland.

February, 1873.

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Sowerby del et lith

Vincent Brooks Day & Son Imp.

PANOPÆA.

PLATE' VI.

Species 8. (Mus. Brit.)

PANOPÆA MIDDENDORFII. *Pan. testâ subtrigonâ, angulatâ, concentricè sublaminatâ, versùs umbones concentricè leviter rugatâ, epidermidè fusco-subvlridi indutâ, utrinque hianti; latere antico brevi, cuneato, margine dorsali subdeclivi, margine ventrali acclivi; medio planulato, margine ventrali recto; latere postico expanso, subangulato, margine dorsali elevato, margine latero-ventrali subtruncato, sursùm acclivi.*

MIDDENDORF'S PANOPÆA. Shell subtrigonal, angular, concentrically laminated, concentrically slightly wrinkled towards the umbones, covered with a greenish-brown epidermis, gaping on both sides; anterior side short, cuneate, dorsal margin rather sloped, ventral margin sloped upwards; middle rather flat, ventral margin straight; posterior side expanded, rather angular, dorsal margin elevated, latero-ventral margin rather truncated, sloped upwards.

A. ADAMS. Proc. Zool. Soc., 1854, p. 137.

Hab. Scandinavia.

Possibly this may prove to be but a somewhat triangular form of *Panopœa splengleri.*

Species 9. (Mus. Brit.)

PANOPÆA ZELANDICA. *Pan. testâ oblongo-subrhomboideâ, pallidè fulvâ, concentricè rugatâ, utrinque truncato, hianti; latere antico breviùsculo, rotundatim angulato; medio latè subplanulato, umbonibus ovatis; latere postico oblongo, margine terminali truncato.*

THE NEW ZEALAND PANOPÆA. Shell oblong-subrhomboidal, pale-fulvous, concentrically wrinkled, truncated and gaping at each end; anterior side rather short, roundly angular, middle widely rather flattened, umbones ovate; posterior side oblong; terminal margin truncated.

QUOY. Voy. de l'Astrolabe, pl. 83, f. 7—9.

Hab. Moreton Bay.

Species 10. (Mus. Paris.)

PANOPÆA ABBREVIATA. *Pan. testâ rugosâ, laminatâ, crassâ, rotundatim ovatâ; latere antico brevi, parvo, margine dorsali depresso, margine ventrali acclivi, subsinuato; medio convexo, umbonibus latis, margine ventrali rotundato; latere postico subelongato, margine dorsali rectiùsculo, termino subcuneato, margine ventrali rotundo, versùs terminum acclivi; margine cardinali incrassato.*

THE SHORTENED PANOPÆA. Shell rough, laminated, thick, roundly ovate; anterior side short, small, dorsal margin depressed, ventral margin sloped upwards, somewhat sinuous; middle convex, umbones wide, ventral margin round; posterior side rather elongated, dorsal margin rather straight, end rather cuneate, ventral margin rounded, sloped upwards towards the end; hinge margin thick.

VALENCIENNES. Illustrations Conchyliologiques, Pl. IX. f. 1, *a*, *b*.

Panopœa antarctica, Gould.

Hab. Coast of Patagonia.

Species 11. (Mus. Brit.)

PANOPÆA AUSTRALIS. *Pan. testâ teniùsculâ albâ, utrinquè latissimè hianti, concentricè rugatâ, valdè inœquilaterali; latere antico latissimo, reflexo, margine dorsali elevato, convexo; medio compresso, margine ventrali concavo, umbonibus acuminatis; latere postico angustiori, oblongo, truncato, margine dorsali depresso.*

THE AUSTRALIAN PANOPÆA. Shell rather thin, white, very widely gaping on both sides, concentrically wrinkled, very inequilateral; anterior side very wide, reflected, dorsal margin elevated, convex; middle compressed, ventral margin concave, umbones acuminated; posterior side narrower, oblong, truncated, dorsal margin depressed.

SOWERBY. Genera of Shells, No. 40.

Hab. Tasmania.

Several specimens of this species exist in the collection of the British Museum, and although rather light and thin, appear to be adult. A drawing of one of these was sent to M. Valenciennes, who considered it to represent the young state of the large shell which he has figured in the "Illustrations Conchyliologiques," and which, in our plate, three of this genus is named *Panopæa attenuata.*

MONOGRAPH

OF THE GENUS

SCALARIA.

"A ladder quaintly made."—*Shakspeare.*

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Sowerby del et lith

Vincent Brooks Day & Son, Imp

SCALARIA.

PLATE I.

Genus SCALARIA, *Lamarck.*

Testa turrita, frequenter alba, lævigata, anfractibus rotundis, frequenter separatis; costis varicosis plus minusve regularibus ornatis; apertura integra, margine reflexo, rotundo. Operculum corneum, paucispirale.

Shell turrited, frequently white, smooth, whorls rounded, frequently separated; ornamented with more or less varicose ribs; aperture entire, margin reflected, rounded. Operculum horny, with few whorls.

The system of regular varices, often continued from whorl to whorl in a half-spiral direction up to the apex, the separation of the whorls in some instances, the delicate colouring in others, and the exquisite sculpture of many species, combine to render this one of the most attractive of genera. The geographical distribution of the genus is world-wide, and many individual species have a very wide range indeed. China and the Philippine Islands produce a large number, and a few are found in Great Britain and more northern localities.

Species 1. (Mus. Nobis.)

SCALARIA NEGLECTA. *Sca. testâ latè pyramidatâ, perforatâ, inter varices pallidè fulvâ; anfractibus rapidè crescentibus, disjunctis; varicibus subnumerosis, tenuiùsculis, continuis, propè suturam aculeatis.*

THE NEGLECTED SCALARIA. Shell broadly pyramidal, perforated, pale fulvous between the varices; whorls rapidly increasing, disunited; varices rather numerous, rather thin, continuous, aculeated near the suture.

ADAMS & REEVE. Voy. Samarang, Zool., p. 31, pl. 11, f. 15.

Scalaria Pallasii, var. Sowerby Thes. Conch.

Hab. China.

Scalaria Pallasii is a narrow shell with proportionally larger and more distant ribs. The difference between the two species is well maintained in all the specimens.

Species 2. (Mus. Brit.)

SCALARIA GRADATA. *Scâ. testâ elongato-pyramidatâ, elevatâ, acuminatâ, albâ; anfractibus contingentibus, lentè crescentibus; costis vix continuis, tenuiùsculis, prope suturam quadratis, subaculeatis.*

THE STEP SCALARIA. Shell elongate, pyramidal, elevated, acuminated, white; whorls contingent, slowly increasing; ribs scarcely contiguous, rather thin, square near the suture, slightly aculeated.

HINDS. *Fid.* Sowb. Thes., Pl. XXXIV. fig. 109.

Scalaria nodosa, Carpenter.

Hab. Amboyna.

This very characteristic shell appears in the British Museum under the name *nodosa*, Carp.

Species 3. (Mus. Nobis.)

SCALARIA AUSTRALIS. *Sca. testâ elongatâ, crassâ, obtusiùsculâ, inter varices grisescenti; anfractibus lente crescentibus, contiguis, subcompressis, infrà carinâ obtusâ, crassâ cinctis; varicibus crassis, subdistantibus, rectiùsculis, continuis.*

THE AUSTRALIAN SCALARIA. Shell elongated, thick, rather obtuse, greyish between the varices; whorls slowly increasing, contiguous somewhat compressed, encircled below with an obtuse thick keel; varices thick, rather distant, rather straight, continuous.

LAMARCK. Anim. s. vert. Sowb. Thes. Conch., f. 62.

Hab. Swan River, Australia. Cape of Good Hope.

Species 4. (Mus. Nobis.)

SCALARIA PRETIOSA. *Sca. testâ magnâ, ventricosâ, latè perforatâ, inter varices pallidè fulvo-purpurascenti; anfractibus rapidè crescentibus, rotundis, separatis; varicibus distantibus, laminatis, prominente extantibus, vix crenulatis; aperturâ magnâ, intùs fusca; columellâ infrà reflexâ, incrassatâ.*

THE PRECIOUS SCALARIA. Shell large, ventricose, broadly perforated, pale fulvous-purple between the varices; whorls rapidly increasing, rounded, separated; varices distant, laminar, prominently outstanding, scarcely crenulated; aperture large, brown within; columella reflected below, thickened.

LAMARCK. Anim. sans vert.

Turbo Scalaris, Linaæus.

Hab. China. Australia. Molluccas.

The above name being the one by which this beautiful shell is popularly known, it is preferred to the old specific name, now used generically.

Species 5. (Mus. Brit.)

SCALARIA COMMUNIS. *Sca. testâ elongatâ, imperforatâ, purpureo fuscoque inter varices variegatâ, super varices radiatim maculatâ, anfractibus numerosis, lentissimè crescentibus, contiguis; varicibus inæqualibus flexuosis, subextantibus, ad suturam elevatis, junctis, continuis.*

THE COMMON SCALARIA. Shell elongated, imperforate, variegated between the varices, radiately spotted on the varices with purple and brown; whorls numerous, very slowly increased, contiguous; varices unequal, flexuous, rather extant, raised, joined, continuous.

LAMARCK. Anim. sans vert.

Turbo clanthrus, Gmel.

Hab. Great Britain. Scandinavia. Mediterranean.

Species 6. (Mus. Brit.)

SCALARIA IMPERIALIS. *Sca. testâ latè pyramidatâ, perforatâ, ventricosâ, tenuiùsculâ; anfractibus paucis, rapidè crescentibus, inter varices purpureo-fuscis; varicibus numerosis, regularibus, subrotundis; interstitiis angustis.*

THE IMPERIAL SCALARIA. Shell broadly pyramidal, perforated, ventricose, rather thin; whorls few, rapidly increasing, purple-brown between the varices; varices numerous, regular, rather rounded; interstices narrow.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Mozambique. Swan River, Australia.

The bright clear colour of the interstices between the close white ribs, give a peculiar charm to this shell.

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

SCALARIA.

PLATE II.

Species 7. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA TURTONIS. *Sca. testâ lævi, pallidè purpureâ, fasciis interruptis, maculisque purpureis vel fuscis variegatâ, imperforatâ, elongatâ; anfractibus contiguis numerosis, paulò convexis; varicibus inæqualibus, planiùsculis, decumbentibus; ad suturam paulò elevatis; aperturâ subovatâ, labio interno crasso, rotundo.*

TURTON'S SCALARIA. Shell smooth, banded, pale purple, variegated with interrupted bands and spots of purple or brown, imperforate, elongated; whorls contiguous, numerous, a little convex; varices unequal, rather flat, decumbent, a little elevated at the sutures; aperture subovate, inner lip thick, rounded.

RISSO ——? Sowerby's Thesaurus, Scalaria, fig. 89, 106, 7, 8.

Scalaria planicostata, Bivon.

Hab. Coasts of Great Britain, and Mediterranean.

The whorls are closer and less convex, and the ribs flatter than in *Scalaria communis*. Besides the British and Mediterranean varieties, there is a rather doubtful one of dark colour found in the Philippines.

Species 8. (Mus. Brit.)

SCALARIA BULLATA. *Sca. testâ albâ, brevi, latâ, ventricosissimâ; anfractibus paucis, rotundatis; varicibus tenuibus, inæqualibus, obliquis, ad suturam elevatis; aperturâ magnâ; umbilico parvo.*

THE BUBBLE-SHAPED SCALARIA. Shell white, short, broad, very ventricose; whorls few, rounded; varices thin, very oblique, elevated at the suture; aperture large; umbilicus small.

SOWERBY. Thesaurus Conchyliorum, Scalaria, Sp. 45, fig. 87.

Hab. Isl. Capul, Philippines; on coral-reefs.

Species 9. (Mus. Brit.)

SCALARIA RARICOSTATA. *Sca. testâ albâ, crassâ, cancellatâ, pyramidatâ, ventricosâ; anfractibus convexis, distinctis, rapidè crescentibus; varicibus perpaucis, inæqualiter distantibus, rotundatis, crenulatis, crassis; aperturâ majusculâ; labio interno anticè subexpanso; umbilico minuto.*

THE RARE-RIBBED SCALARIA. Shell white, thick, cancellated, pyramidal, ventricose; whorls convex, distinct, rapidly increasing; varices very few, unequally distant, rounded, crenulated, thick; aperture rather large; inner lip anteriorly slightly expanded; umbilicus very small.

LAMARCK. Anim. sans Vert. Sowb. Thes., fig. 79, 80.

Hab. Ceylon.

Species 10. (Mus. Grüner, Brit. &c.)

SCALARIA MAGNIFICA. *Scá. testâ magnâ, elongatâ, pyramidatâ, albidâ, anfractibus numerosis, lentè crescentibus, rotundatis, distinctis; costis spiralibus validis striisque concentricis interstitialibus cancellatis; varicibus ad anfractus superiores nullis, ad anfractus ultimas raris, arcuatis, inæquidistantibus; aperturâ subauriformi, columellâ subtortuâ.*

THE MAGNIFICENT SCALARIA. Shell large, elongated, pyramidal, white, whorls numerous, slowly increasing, rounded, distinct; cancellated with strong spiral ribs and concentric interstitial striæ; varices on the upper whorls none, on the last whorls few, arched, inequidistant; aperture partly auriform, columella somewhat tortuous.

SOWERBY. Thesaurus Conchyliorum, Sp. 78, fig. 103.

Turbo principalis, Chemnitz, not Pallas.

Hab. China?

The specimens in the British Museum have not attained the stage of growth at which the varices begin to appear at all numerously.

Species 11. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA VARICOSA. *Sca. testâ albâ, crassâ, rugis nodulosis cancellatâ; anfractibus distinctis, ultimo infrà spiraliter carinato; suturâ profundâ, frequenter laminis extantibus interruptâ; varicibus rarissimis, crassis, crenulatis; aperturâ rotundâ, labio interno suprà et infrà expanso, reflexo.*

THE VARICOSE SCALARIA. Shell white, thick, cancellated with nodulous wrinkles; whorls distinct, the last spirally keeled below; suture deep, frequently interrupted with outstanding laminæ; varices very rare, thick, crenulated; aperture rounded, inner lip expanded and reflected above and beneath.

LAMARCK. Animaux sans Vertèbres.

Scalaria fimbriata, Lamk. Enc. Met.

Hab. Isl. Capul, Luzon, &c., Philippines.

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13 *b*

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Sowerby del et lith.

Vincent Brooks Day & Son Imp.

SCALARIA.

PLATE III.

Species 12. (Mus. Brit.)

SCALARIA PRINCIPALIS. *Sca. testâ albâ, elongatâ, imperforatâ; anfractibus rotundatis, numerosis, contiguis; varicibus subregularibus, laminatis, ad suturam paulò dilatatis, irregulariter junctis.*

THE PRINCELY SCALARIA. Shell white, elongated, imperforate; whorls rounded, numerous, contiguous; varices rather regular; laminated, a little dilated at the suture, irregularly joined.

PALLAS ——? Martini.

Scalaria costulata, Keiner.

Hab. Xipixappi, West Columbia, *Cuming*. California, *Carpenter*.

The figure given by Pallas and copied by Martini is apparently that of a larger shell than the specimen figured in Sowerby's Thesaurus; but in other respects the characters agree.

Species 13. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA FASCIATA. *Sca. testâ albâ, inter varices spiraliter fusco unifasciatâ, pyramidatâ; anfractibus rotundatis, vix contiguis; varicibus æquidistantibus, laminatis, extantibus, propè suturam in angulum acuminatum elevatis; aperturâ subovatâ, labio externo ad suturam excavato, tùm approximatim acuminato.*

THE BANDED SCALARIA. Shell white, spirally single-banded with brown between the varices, pyramidal; whorls rounded, hardly touching; varices equidistant, laminated, extant, raised into an acuminated angle; aperture subovate, outer lip excavated at the suture, then acuminated approximately.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 4, fig. 12, 13.

Hab. Isl. Luzon, Philippines.

This species differs from *Scalaria alata* in being narrower, and in the shape of the varices and margin of the aperture. In each species there is an angle on the varix, but in *Scalaria fasciata* it is much more pointed and elevated than in *Scalaria alata*, and leans towards the whorl.

Species 14. (Mus. Brit.)

SCALARIA ANGULATA. *Sca. testâ subcylindraceâ, albâ, obtusâ; anfractibus separatis, ovatis; varicibus subdistantibus, crassis, propè suturam obtusè angulatis; aperturâ subovatâ.*

THE ANGULAR SCALARIA. Shell subcylindrical, white, obtuse; whorls separated, ovate; varices rather distant, thick, obtusely angular near the suture, aperture subovate.

SAY. Boston American Journal.

Scalaria Humphreysiana, Keiner.

Hab. North America.

Species 15. (Mus. Brit.)

SCALARIA ALATA. *Sca. testâ albâ, inter varices medio anfractum latè unifasciatâ, pyramidatâ; anfractibus separatis; varicibus laminatis, latis, distantibus, extantibus, supernè expansis, angulatis; aperturâ subovatâ, margine labii externi ad suturam declivi, tùm in alam angulatam distanter expanso.*

THE WINGED SCALARIA. Shell white, broadly single-banded in the middle of the whorls between the varices, pyramidal; whorls separate; varices laminated, broad, distant, standing out, expanded above, angular; aperture subovate, margin of the outer lip sloped at the suture, then expanded in a distant angle.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Isl. Luzon, Philippines.

Instead of the elevated point sloped towards the suture which is seen in *Scalaria fasciata*, the present

species has at the upper part of each varix an angular expansion sloped outwards.

Species 16. (Mus. Brit.)

SCALARIA MARMORATA. *Sca. testâ pyramidatâ, lævi, pallidâ, inter varices maculis fasciisque interruptis marmoratâ; varicibus laminatis, angustis, tenuibus, supernè obtusè angulatis, ad suturam declivis.*

THE MARBLED SCALARIA. Shell pyramidal, smooth, pale, marbled between the varices with spots and interrupted bands; varices laminated, narrow, thin, obtusely angular above, sloped at the suture.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 5, fig. 9.

Hab. India.

Distinguished from *Scalaria alata* and *Sc. fasciata* by the marbled markings, and by the narrow and obtusely angular whorls.

Species 17. (Mus. Brit.)

SCALARIA PYRAMIDALIS. *Sca. testâ albâ, pyramidatâ, subventricosâ; anfractibus distinctis; varicibus sublaminatis, extantibus, propè suturam in angulum acutum productis; aperturâ subrotundâ, labio interno anticè reflexo, cuneato.*

THE PYRAMIDAL SCALARIA. Shell white, pyramidal, subventricose; whorls distinct; varices somewhat laminated, extant, produced into an acute angle near the suture; aperture rather rounded, inner lip anteriorly reflected, cuneate.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 9, fig. 4.

Hab. Philippines.

Species 18. (Mus. Brit.)

SCALARIA STATUMINATA. *Sca. testâ albâ, inter varices cæruleâ, brevi, crassâ, imperforatâ; anfractibus declivibus, contiguis, anticè carinatis; varicibus crassis, prominentibus, obliquè continuis, propè suturam in angulum elevatum expansis.*

THE BUTTRESSED SCALARIA. Shell white, bluish between the varices, short, thick, imperforate; whorls sloped, contiguous, anteriorly carinated; varices thick, prominent, obliquely continuous, expanded in a raised angle near the suture.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 77, fig. 127.

Hab. Hayti, Peru.

A very singular little shell.

Species 19. (Mus. Brit.)

SCALARIA CRENATA. *Sca. testâ pyramidatâ, imperforatâ, pallidè fuscâ, minutissimè granulatâ; anfractibus contiguis, supernè ad suturam angulatis et crenulatis, infrà sulcâ faveolatâ et carinâ crenatâ marginatis.*

THE CRENATED SCALARIA. Shell pyramidal, imperforate, pale-brown, very minutely granulated; whorls contiguous, angulated and crenulated above at the suture, bordered below by a pitted groove and crenated keel.

LINNÆUS. (Turbo) Systema Naturæ.

Hab. Portugal. West Indies.

Species 20. (Mus. Brit.)

SCALARIA MARTINII. *Sca. elevatâ, albâ, spiraliter striatâ; anfractibus numerosis, rotundatis, contiguis; varicibus perpaucis, rotundatis, crenatis, suprà medium leviter arcuatis; aperturâ subauriformi.*

MARTINI'S SCALARIA. Shell elevated, white, spirally striated; whorls numerous, rounded, contiguous; varices very few, rounded, crenated, slightly curved above the middle; aperture a little auriform.

WOOD. Index Testaceologicus.

Scalaria striata, Keiner.

Scalaria raricostata, (pars) Lamarck.

Hab. West Indies.

Resembles *Scalaria raricostata* in the rarity of the varices, but is of a more elevated and graceful form.

21a

22a

22b

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21b

Sowerby del et lith

Vincent Brooks, Day & Son, Imp.

SCALARIA.

PLATE IV.

Species 21. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA PHILIPPINARUM. *Sca. testâ angustâ, pyramidatâ, inter varices fulvâ vel castaneâ, vel omnino albâ; anfractibus numerosis, rotundatis; varicibus albis, distantibus, supernè vix angulatis; aperturâ parvâ, rotundatâ.*

THE PHILIPPINE SCALARIA. Shell narrow, pyramidal, fulvous or chestnut between the varices, or entirely white; whorls numerous, rounded; varices white, distant, very slightly angular above; aperture small, rounded.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Philippines and Amboyna.

Species 22. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA OBESA. *Sca. testâ brevi, latâ, ventricosâ, albidâ, anfractibus paucis, rotundatis, contiguis; ultimo anfractu ventricoso, varicibus numerosis, crassis, rotundatis; aperturâ subovatâ, margine fulvo.*

THE OBESE SCALARIA. Shell short, broad, ventricose, whitish, whorls few, rounded, contiguous; last whorl ventricose, varices numerous, thick, rounded; aperture subovate, margin fulvous.

SOWERBY. Thesaurus Conchyliorum, No. 4, Scalaria, Sp. 25, fig. 70, 71.

Hab. Australia.

A very stout, short little species.

Species 23. (Mus. Brit.)

SCALARIA LYRA. *Sca. testâ ventricosâ, breviusculâ, pallidè fulvâ, spiraliter fulvo bifasciatâ, varicibus angustissimis laminatis creberrimè liratâ, anfractibus rotundatis contiguis; aperturâ auriformi.*

THE LYRE SCALARIA. Shell ventricose, rather short, pale-fulvous, spirally double-banded with fawn-colour, very closely ridged with very narrow laminar varices, whorls rounded, contiguous; aperture auriform.

SOWERBY. Thesaurus Conchyliorum, No. 4, Scalaria, Sp. 27, fig. 81, 82.

Hab. Isl. Masbate, Philippines; H. Cuming.

Species 24. (Mus. Brit.)

SCALARIA IMMACULATA. *Sca. testâ albâ, elongatâ, subumbilicatâ, spiraliter striatâ; anfractibus rotundatis, contiguis, ad suturam crenulatis; varicibus tenuissimis, inæqualibus, medio anfractuum evanidis; aperturâ ovatâ.*

THE IMMACULATE SCALARIA. Shell white, elongated, subumbilicated, spirally striated; whorls rounded, contiguous, crenulated at the suture; varices very thin, unequal, disappearing in the middle of the whorls; aperture ovate.

SOWERBY. Zool. Proc. Thes. Conch., Sp. 39, fig. 58.

Hab. Catanuan, Isl. Luzon, Philippines.

Species 25. (Mus. Brit.)

SCALARIA CRASSA. *Sca. testâ pyramidatâ, albâ, irregulariter tenuissimè varicosâ, subumbilicatâ; anfractibus rotundatis, lentè crescentibus; aperturâ subovatâ, labio interno anticè paulò expanso, cuneato.*

THE THICK SCALARIA. Shell pyramidal, white, irregularly very finely varicose, slightly umbilicated; whorls rounded, slowly increasing; aperture rather oval; inner lip anteriorly a little expanded, cuneate.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., f. 55.

Hab. Philippines.

Species 26. (Mus. Brit.)

SCALARIA IRREGULARIS. *Sca. testâ albâ, tenui, umbilicatâ, pyramidatâ; anfractibus rotundatis, contiguis; varicibus tenuissimis, numerosis, irregularibus, ad suturam minutè extantibus; labio interno obliquo.*

THE IRREGULAR SCALARIA. Shell white, thin, umbilicated, pyramidal; whorls rounded, contiguous; varices very thin, numerous, irregular, minutely standing out at the suture; inner lip oblique.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Catanuan, Isl. Luzon, Philippines.

Species 27. (Mus. Brit.)

SCALARIA HEXAGONA. *Sca. testâ parvâ, pyramidatâ, albâ, imperforatâ; anfractibus paucis, contiguis; varicibus paucis, obliquè continuis, crassis, distantibus; aperturâ rotundatâ.*

THE HEXAGONAL SCALARIA. Shell small, pyramidal, white, imperforate; whorls few, contiguous; varices few, obliquely continued, thick, distant; aperture rounded.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Acapulca.

Species 28. (Mus. Brit.)

SCALARIA UNIFASCIATA. *Sca. testâ parvâ, albâ, imperforatâ, angustâ; anfractibus ad suturam inter varices fusco unifasciatis; varicibus paucis, rectiusculis, super anfractus continuis; aperturâ parvâ, rotundatâ.*

THE SINGLE-BANDED SCALARIA. Shell small, white, imperforate, narrow; whorls single-banded with brown at the suture between the varices; varices few, rather straight, continuous upon the whorls; aperture small, rounded.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. West Indies.

This pretty little species is distinguished by a narrow brown band between the varices at the upper part of the whorls.

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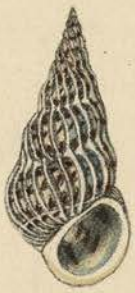
32

33 a.

33 b.



34.

35

36

34 a

Sowerby, del et lith

Vincent Brooks Day & Son, Imp

SCALARIA.

PLATE V.

Species 29. (Mus. Brit.)

SCALARIA FRAGILIS. *Sca. testâ tenui, angustâ, albâ, imperforatâ; anfractibus numerosis, contiguis; varicibus numerosissimis, tenuibus, laminatis, extantibus, ad suturam continuis; aperturâ subovatâ.*

THE FRAGILE SCALARIA. Shell thin, narrow, white, imperforate; whorls numerous, contiguous; varices very numerous, thin, laminated, extant, continued at the suture; aperture rather oval.

HANLEY. Book of Species.

Hab. St. Vincent's, West Indies.

Species 30. (Mus. Brit.)

SCALARIA AURITA. *Sca. testâ angustâ, inter costas pallidè fulvâ, fusco-rubescenti spiraliter bifasciatâ; anfractibus numerosis, gradatim crescentibus; varicibus tenuibus, arcuatis, subdistantibus, decumbentibus, ad suturam junctis, aperturâ subovatâ; labio interno anticè angulatim expanso.*

THE EARED SCALARIA. Shell narrow, pale fawn between the ribs, spirally two-banded with reddish-brown; whorls numerous, gradually increased; varices thin, arched, rather distant, decumbent, joined at the suture, aperture subovate; inner lip anteriorly angularly expanded.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 36, fig. 62.

Hab. Coast of Coromandel.

Species 31. (Mus. Brit.)

SCALARIA TENUI-COSTATA. *Sca. testâ albâ, subventricosâ, tenui, imperforatâ, anfractibus paucis, subovatis; varicibus laminatis, tenuibus, extantibus, ad suturam angulatim elevatis; aperturâ subovatâ, labio externo in angulum elevatum expanso.*

THE THIN-RIBBED SCALARIA. Shell, white, subventricose thin, imperforated, whorls few, rather oval; varices laminated, thin, extant, raised angularly at the suture; aperture rather ovate, outer lip expanded into an elevated angle.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Isl. Luzon, Philippines.

A pretty little characteristic species, with angular varices.

Species 32. (Mus. Brit.)

SCALARIA LINEOLATA. *Sca. testâ pyramidatâ, ventricosâ, pallidè fulvâ, inter varices spiraliter bilineatâ vel bifasciatâ, umbilicatâ; anfractibus prominentè rotundatis; varicibus numerosis, tenuibus, rotundatis; aperturâ subovatâ, labio interno infrà angulato.*

THE LINEOLATE SCALARIA. Shell pyramidal, ventricose, pale fulvous, spirally two-lined or two-banded between the varices, umbilicated; whorls prominently rounded; varices numerous, thin, rounded; aperture subovate, inner lip angular beneath.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 32, fig. 45, 46, 48.

Scalaria trifasciata var., Keiner.

Hab. Philippines. Japan.

Species 33. (Fig. *a*, *b*, Mus. Sowerby.)

SCALARIA CLATHRUS. *Sca. testâ pyramidatâ, ventricosâ, albâ, inter varices nonnunquam fulvâ vel fuscâ, imperforatâ; anfractibus paucis; ultimo anfractu infrà medium spiraliter unicostato; varicibus laminatis, latis, ad suturam junctis, super spiram obliquè continuis.*

THE LATTICE SCALARIA. Shell pyramidal, ventricose, white, sometimes fulvous or brown between the varices, imperforate; whorls few; last whorl

spirally single ribbed below the middle; varices laminated, broad, joined at the suture, continued obliquely on the spire.

LINNÆUS. Systema Naturæ.

Scalaria lamellosa, Lamarck.

Scalaria monocycla, Keiner. (var.)

Hab. Mediterranean. West Indies.

Species 34. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA CORONATA. *Sca. testâ ventricosâ, inter varices maculis regularibus triseriatim dispositis ornatâ, imperforatâ; anfractibus numerosis, contiguis; ultimo anfractu infrà medium spiraliter unicostato; varices laminatis, numerosis, latis, ad suturam junctis, super spiram obliquè continuis.*

THE CROWNED SCALARIA. Shell ventricose, ornamented with regular spots disposed in three rows between the varices, imperforate; whorls numerous, contiguous; last whorl spirally single ribbed below the middle; varices laminated, numerous, broad, united at the suture, oblique, continued on the spire.

LAMARCK. Animaux sans Vertèbres.

Hab. West Indies.

More ventricose than *Scalaria clathrus*, and beautifully ornamented by series of spots between the varices.

Species 35. (Mus. Brit.)

SCALARIA GRANULATA. *Sca. testâ pyramidatâ, minutissimè granulatâ, fulvâ, rarissimè varicosâ, albâ unifasciatâ; anfractibus declivibus, ad suturam crenulatis; aperturâ subtrigonâ, labio interno crasso, infrà angulato.*

THE GRANULATED SCALARIA. Shell pyramidal, very minutely granulated, fulvous, very rarely varicose, with a single band of white; whorls sloped, crenulated at the suture; aperture subtrigonal, inner lip thick, angular beneath.

QUOY ET GAIMARD. Voyage de l'Astrolabe.

Hab. Swan River, Australia.

Species 36. (Mus. Brit.)

SCALARIA GEORGETTINA. *Sca. testâ pyramidatâ, albâ, tenui, imperforatâ; anfractibus contiguis, rotundatis; varicibus tenuibus, rotundatis, numerosis, angustissimis, vix continuis; aperturâ ovatâ.*

THE GEORGETTINA SCALARIA. Shell pyramidal, white, thin, imperforate; whorls contiguous, rounded; varices thin, numerous, very narrow, scarcely continuous; aperture ovate.

KEINER. Iconographie.

Hab. ——?

The varices are more rounded than in *Scalaria communiformis*.

37

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40 a

41 a

41 b

40 b

42

43

44

Sowerby, del et lith.

Vincent Brooks Day & Son, Imp

SCALARIA.

PLATE VI.

Species 37. (Mus. Brit.)

SCALARIA TENUIS. *Sca. testâ albâ, tenui, angustâ; spirâ attenuatâ, anfractibus brevibus, varicibus numerosis, laminatis, tenuibus, obliquis, ad suturam angulatim aculeatis; aperturâ parvâ, labio externo propè suturam angulatim aculeato.*

THE THIN SCALARIA. Shell white, thin, narrow; spire tapering, whorls short, varices numerous, laminated, thin, oblique, angularly aculeated at the suture; aperture small, outer lip angularly aculeated near the suture.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. West Indies.

Species 38. (Mus. Brit.)

SCALARIA LAXATA. *Sca. testâ tenui, lævi, albâ, anfractibus multò disjunctis, varicibus numerosis, tenuibus, vix regularibus, laminatis, simplicibus; aperturâ ovali.*

THE LOOSENED SCALARIA. Shell thin, smooth, white, whorls much disunited, varices numerous, thin, scarcely regular, laminated, simple; aperture oval.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Isl. Luzon, Philippines.

Species 39. (Mus. Brit.)

SCALARIA REPLICATA. *Sca. testâ brevi, albâ, anfractibus sex, paulò disjunctis; varicibus subdistantibus, laminatis, replicatis, propè suturam in lobam elevatam expansis; aperturâ magnâ, subquadratâ, margine subexpanso.*

THE REFOLDED SCALARIA. Shell short, white, whorls six, a little disunited; varices rather distant, laminated, folded back, expanded into an elevated lobe near the suture; aperture large, subquadrate, margin rather expanded.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Lord Hood's Island.

A well characterized shell with varices curiously folded back upon themselves.

Species 40. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA PALLASII. *Sca. testâ pyramidatâ, perforatâ, inter varices pallidè fulvâ, vel fuscâ; anfractibus septem, paulò disjunctis; varicibus laminatis, prominentibus, distantibus, regulariter sequentibus, propè suturam obtusè angulatis.*

PALLAS'S SCALARIA. Shell pyramidal, perforated, pale fulvous, or brown between the varices; whorls seven, a little disunited; varices laminar, prominent, distant, following in regular sequence, obtusely angular near the suture.

KIENER. Icon.

Scalaria principalis, Nonnul.

Hab. Catannan, Philippines.

I shall describe further on in the monograph the larger shell, hitherto included as a distinct species, under the name of *S. neglecta*. It has a larger whorl and more numerous varices, with their angular points more distinct.

Species 41. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA HYALINA. *Sca. testâ pyramidatâ, albâ, lævi, tenui, pellucidâ; anfractibus multò disjunctis; varicibus distantibus, laqueatis; aperturâ rotundatâ, ab ultimo anfractu separatâ, margine laqueato.*

THE HYALINE SCALARIA. Shell pyramidal, white, smooth, thin, pellucid; whorls much disunited,

varices distant, fluted; aperture rounded, separated from the last whorl, margin fluted.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Catannan, Isl. Luzon, Philippines.

Species 42. (Mus. Brit.)

SCALARIA DENTICULATA. *Sca. testâ albâ, oblongo-pyramidatâ, spiraliter distanter inciso-striatâ; spirâ subattenuatâ, anfractibus contiguis; varicibus obliquè sequentibus, tenuibus, numerosis, propè suturam in dentem aculeatam parvam productis.*

THE DENTICULATED SCALARIA. Shell white, oblong-pyramidal, spirally distantly incised, striated; spire rather tapering, whorls contiguous; varices obliquely following in sequence, thin, numerous, produced into a little aculeated tooth near the suture.

SOWERBY. Thesaurus Conchyliorum, Scalaria, Sp. 19, figs. 25, 26.

Hab. West Indies.

Species 43. (Mus. Brit.)

SCALARIA MURICATA. *Sca. testâ tenui, albâ, elongatâ, imperforatâ; anfractibus contiguis, varicibus latis, laminatis, propè suturam in alam acuminatam expansis; aperturâ ovatâ, margine anticè angusto, posticè in alam acuminatam expanso.*

THE MURICATED SCALARIA. Shell thin, white, elongated, imperforated; whorls contiguous, varices broad, laminar, expanded into an acuminated wing near the suture; aperture ovate, margin anteriorly narrow, posteriorly expanded into an acuminated wing.

KIENER. Icon. pl. 4, fig. 11.

Species 44. (Mus. Brit.)

SCALARIA MITRÆFORMIS. *Sca. testâ pyramidatâ, albâ, tenui; spirâ acuminatâ, anfractibus contiguis, varicibus numerosis, in lobam aculeatam parvam propè suturam expansis; aperturâ ovatâ; labio externo ad suturam emarginato, tùm aculeatim lobato.*

THE MITRE-FORMED SCALARIA. Shell pyramidal, white, thin; spire acuminated, whorls contiguous, varices numerous, expanded into an aculeated small lobe near the suture; aperture ovate; outer lip emarginated at the suture, then sharply lobed.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Guacomayo. Central America.

Very similar to the preceding, but with the varices more numerous, narrower, and forming a smaller and sharper point at the angle.

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46 a

46 b

47 a

48

49

47 b

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52

Sowerby, del et lith

Vincent Brooks Day & Son, Imp

SCALARIA.

PLATE VII.

Species 45. (Mus. Brit.)

SCALARIA DUBIA. *Sca. testâ albâ, brevi, ventricosâ, tenui, spirâ pyramidatâ, anfractibus quinque, latis; varicibus tenuissimis, numerosis, obliquis, medio ferè obsoletis, ad suturam paulò expansis.*

THE DUBIOUS SCALARIA. Shell white, short, ventricose, thin, spire pyramidal, whorls five, broad; varices very thin, numerous, oblique, nearly obsolete in the middle, a little expanded at the suture.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. ——?

The specimen in the Cumingian Cabinet from which this shell was originally described was somewhat incomplete.

Species 46. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA ACULEATA. *Sca. testâ parvâ, albâ, angustâ, anfractibus octo, contiguis; varicibus crassiùsculis, subdistantibus, sequentibus ad suturam emarginatis tùm in lobam parvam aculeatam elevatis; aperturâ ovatâ, labio externo posticè emarginato et lobato.*

THE ACULEATED SCALARIA. Shell small, white, narrow, whorls eight, contiguous; varices rather thick, rather distant, following in sequence, emarginated at the suture, then elevated into a small aculeated lobe; aperture ovate, outer lip posteriorly emarginated and lobed.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Hongkong. Malacca. Philippines.

Species 47. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA TRIFASCIATA. *Sca. testâ brevissimâ, ventricosâ, inter varices aureo-subfuscâ, fasciis tribus spiralibus ornatâ; spirâ brevi, anfractibus paucis, ventricosis; varicibus numerosis, inæqualibus, subrotundis.*

THE THREE-BANDED SCALARIA. Shell very short, ventricose, golden-brownish between the varices, ornamented with three spiral bands; spire short, whorls few, ventricose; varices numerous, unequal, rather rounded.

DE HAEN. ——?

Hab. Masbate, Philippines.

Very much shorter than *Scalaria imperialis*, which it resembles in the colouring and varices.

Species 48. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA OBTUSA. *Sca. testâ albâ, parvâ, brevi, subventricosâ; spirâ breviùsculâ, apice obtuso, anfractibus paucis, contiguis, varicibus numerosis, tenuibus, supernè obtusè angulatis.*

THE OBTUSE SCALARIA. Shell white, small, short, rather ventricose; spire rather short, apex obtuse, whorls few, contiguous, varices numerous, thin, obtusely angular above.

Species 49. (Mus. Brit.)

SCALARIA CURVILINEATA. *Sca. testâ subcylindraceâ, albidâ, spirâ obtusâ, anfractibus paucis, oblongis, contiguis, varicibus curvilineatis, simplicibus, aperturâ ovatâ.*

THE CURVILINEAR SCALARIA. Shell subcylindrical, whitish, spire obtuse, whorls few, oblong, contiguous, varices curvilinear, simple, aperture ovate.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., f. 59.

Hab. Sansonati, Central America.

Species 50. (Mus. Brit.)

SCALARIA CONCINNA. *Sca. testâ parvâ, albidâ, pyramidatâ, spirâ moderatè elevatâ, anfractibus paucis,*

contiguis, varicibus numerosis, approximatis, crassiusculus, simplicibus; aperturâ ovatâ.

THE NEAT SCALARIA. Shell small, whitish, pyramidal, spire moderately elevated, whorls few, contiguous; varices numerous, close, rather thick, simple, aperture ovate.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., fig. 63.

Hab. Isl. Bohol, Philippines.

The varices are much more close and numerous than in *Scalaria multicostata.*

Species 51. (Mus. Brit.)

SCALARIA OBLIQUA. *Sca. testâ parvâ, albâ, tenui, spirâ attenuatâ, anfractibus obliquis, vix contiguis, varicibus obliquis, tenuibus, numerosis, propè suturam leviter angulatis.*

THE OBLIQUE SCALARIA. Shell small, white, thin, spire attenuated, whorls oblique, scarcely contiguous, varices oblique, numerous, slightly angular near the suture.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., fig. 69.

Hab. ——?

More finely and obliquely ribbed than *Scalaria tenuis.*

Species 52. (Mus. Brit.)

SCALARIA FRIABILIS. *Sca. testâ albâ, pyramidatâ, tenuissimâ; spirâ elevatâ, anfractibus contiguis, convexis, varicibus tenuissimis, densis, ad suturam aculeatis; aperturâ majusculâ, ovatâ.*

THE BRITTLE SCALARIA. Shell white, pyramidal, very thin; spire elevated, whorls contiguous, convex, varices very thin, close, aculeated close to the suture; aperture rather large, ovate.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., fig. 74.

Hab. Swan River, Australia. LIEUT. COLLIE.

The varices are extremely thin and thread-like.

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60a

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59b

60b

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

SCALARIA.

PLATE VIII.

Species 53. (Mus. Brit.)

SCALARIA GRACILIS. *Sca. testâ parvâ, attenuatâ, inter varices fulvâ, spirâ valdè elevatâ, anfractibus contiguis, numerosis, varicibus albis, sequentibus, propè suturam emarginatis et aculeatis.*

THE SLENDER SCALARIA. Shell small, attenuated, fulvous between the varices, spire much elevated, whorls contiguous, numerous, varices white, following in sequence, emarginated and aculeated near the suture.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., fig. 33.

Hab. Dumaguete, Isl. of Negroes, Philippines.

Species 54. (Mus. Brit.)

SCALARIA CLATHRATULA. *Sca. testâ parvâ, albâ, tenui, imperforatâ, anfractibus numerosis, vix contiguis, varicibus numerosis, rotundatis, irregularibus, propè suturam subangulatis; aperturâ ovatâ.*

THE CROSS-BARRED SCALARIA. Shell small, white, thin, imperforate, whorls numerous, scarcely contiguous, varices numerous, rounded, irregular, slightly angular near the suture; aperture ovate.

MONTAGU. Testacea Britannica.

Hab. Great Britain.

Species 55.

SCALARIA UNICOSTATA. *Sca. testâ parvâ, pyramidatâ, fulvâ, infrà spiraliter uniliratâ, anfractu ultimo fusco bifasciato; varicibus ad anfractum utrumque unâ, sequenti, suturâ minutissimè crenulatâ; aperturâ parvâ, rotundâ, margine crasso, rotundo.*

THE ONE-RIBBED SCALARIA. Shell small, pyramidal, fulvous, with a spiral ridge below, last whorl with two brown bands; varices, one on each whorl following, suture very minutely crenulated; aperture small, rounded, margin thick, rounded.

SOWERBY.

Hab. America.

This little shell is figured in Thesaurus Conchyliorum as a variety of the preceding, but as it has only one varix on each whorl, and a small, round thick-lipped aperture, it may be worthy of a separate name and description.

Species 56. (Mus. Brit.)

SCALARIA LINEATA. *Sca. testâ solidâ, pyramidatâ, inter varices purpureo-fuscâ, spirâ elevatâ, anfractibus septem, infrà spiraliter uniliratis obliquis, varicibus albis, numerosis, simplicibus, rotundis, obliquis; aperturâ majusculâ, fuscâ.*

THE LINEATED SCALARIA. Shell solid, pyramidal, purple-brown between the varices, spire elevated, whorls seven, with a spiral ridge below oblique, varices white, numerous, simple, rounded, oblique; aperture rather large, brown.

SAY. ——?

Hab. N. America.

Species 57. (Mus. Brit.)

SCALARIA ALBOLINEATA. *Sca. testâ parvâ, angusto-pyramidatâ, inter varices fusco-purpureâ; spirâ elevatâ, anfractibus octo, varicibus albis, numerosis, crassiùsculis, medio obscurè angulatis; aperturâ parvâ, rotundâ.*

THE WHITE-LINED SCALARIA. Shell small, narrow, pyramidal, brown-purple between the varices; spire elevated, whorls eight, varices white, numerous, rather thick, obscurely angular in the centre; aperture small, rounded.

SOWERBY. Thesaurus Conchyliorum, Scalaria, Sp. 68, fig. 52.

Hab. ——?

Somewhat resembling *Scalaria Philippinarum* but with the whorls less separated and the varices slightly angular.

Species 58. (Mus. Brit.)

SCALARIA INCONSPICUA. *Sca. testâ minutâ, albidâ, brevi, ventricosâ, umbilicatâ, spirâ pyramidatâ, anfractibus paucis, rotundis; varicibus numerosis, tenuissimis, obliquis; aperturâ subquadratâ, supernè vix angulatâ, labio interno basi columellæ angulato.*

THE INCONSPICUOUS SCALARIA. Shell minute, white, short, ventricose, umbilicated, spire pyramidal, whorls few, rounded; varices numerous, very thin, oblique; aperture subquadrate, scarcely angular above, inner lip angular at the base by the columella.

SOWERBY. Thesaurus Conchyliorum, Scalaria, Sp. 30, fig. 53.

Hab. West Indies.

Species 59. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA TURRICULA. *Sca. testâ angusto-pyramidatâ, umbilicatâ; spiraliter minutissimè striatâ, inter varices fulvo-rubescenti, anfractibus numerosis, elevatis, contiguis; varicibus frequentibus, albis, plerumque tenuibus, nonnulis crassioribus; aperturâ ovatâ, parvâ.*

THE TURRICULATED SCALARIA. Shell narrow, pyramidal, umbilicated; spirally very minutely striated, reddish brown between the varices, whorls numerous, elevated, contiguous; varices frequent, white, mostly thin, some thicker; aperture ovate, small.

SOWERBY. Thesaurus Conchyliorum, Sp. 37, fig. 62.

Hab. West Indies.

Species 60. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA BICARINATA. *Sca. testâ parvâ, subcylindraceâ, imperforatâ, albidâ, angustâ, minutissimè cancellatâ, spirâ elevatâ, obtusâ, anfractibus lateraliter rectiùsculis, attenuatis, ultimo anfractu breviùsculo, validè bicarinato, suturâ foveolatâ, aperturâ parvâ, subquadratâ.*

THE BICARINATED SCALARIA. Shell small, subcylindrical, imperforate, whitish, narrow, very minutely cancellated, spire elevated, obtuse, whorls rather straight-sided, attenuated, last whorl rather short, strongly bicarinated, suture pitted, aperture small, rather square.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 85, fig. 113, 114.

Hab. Dumaguete, Isl. of Negroes, Philippines.

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68 a

68 b

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Sowerby. del et lith.

Vincent Brooks Day & Son Imp

SCALARIA.

PLATE IX.

Species 61. (Mus. Brit.)

SCALARIA VENOSA. *Sca. testâ pyramidatâ, lævi, acuminatâ, imperforatâ; anfractibus prominentibus, vix contiguis; varicibus approximatis, crassiùsculis, medio et infrà rotundatim reflexis, supernè angulatis, propè suturam angustioribus; aperturâ rotundatâ; suturâ foveolatâ.*

THE VEINED SCALARIA. Shell pyramidal, smooth, acuminated, imperforate; whorls prominent, scarcely touching; varices close, rather thick, roundly reflected in the middle and beneath, angular above, narrower near the suture; aperture rounded; suture pitted.

SOWERBY. Thesaurus Conchyliorum, Sp. 26, fig. 72, 73.
Hab. West Indies.

The varices, being roundly reflected have a peculiar vein-like appearance.

Species 62. (Mus. Brit.)

SCALARIA BULBULUS. *Sca. testâ brevissimâ, ventricosâ, imperforatâ, fulvâ; spirâ brevi, anfractibus quinque, rotundis, contiguis, varicibus subdistantibus, leviter arcuatis, rotundis; aperturâ magnâ, ovato-rotundâ.*

THE BULB SCALARIA. Shell very short, ventricose, imperforated, fulvous; spire short, whorls five, rounded, contiguous, varices rather distant, slightly arched, rounded; aperture large, ovate-rounded.

SOWERBY. Proc. Zool. Soc., 1844. Thesaurus Conchyliorum, fig. 85.

Species 63. (Mus. Brit.)

SCALARIA SIMILIS. *Sca. testâ albâ, tenui, subventricosâ, subtilissimè spiraliter striatâ, spirâ breviùsculâ, anfractibus sex, contiguis, varicibus tenuissimis, aperturâ obliquè ovatâ.*

THE SIMILAR SCALARIA. Shell white, thin, a little ventricose, very minutely spirally striated, spire rather short, whorls six, contiguous, varices very thin, aperture obliquely ovate.

SOWERBY. Proc. Zool. Soc., 1844. Thesaurus Conchyliorum, Sp. 44, fig. 90.
Hab. Philippines.

Species 64. (Mus. Saul.)

SCALARIA RUBROLINEATA. *Sca. testâ subventricosâ, perforatâ, fulvâ, inter varices spiraliter rubro unolineatâ; spirâ breviùsculâ, anfractibus quinque, contiguis; varicibus numerosis, albis, moderatè arcuatis, simplicibus, aperturâ intùs aureâ, columellâ obtusè angulatâ.*

THE RED-LINED SCALARIA. Shell rather ventricose, perforated, light brown, with a single spiral red line; spire rather short, whorls five, contiguous; varices numerous, white, moderately arched, simple, aperture golden within, columella obtusely angular.

SOWERBY. Thesaurus Conchyliorum, Sp. 33, fig. 83, 84.
Hab. —— ?

Species 65. (Mus. Brit.)

SCALARIA MULTICOSTATA. *Sca, testâ parvâ, fulvâ, pyramidatâ, anfractibus paucis, apice obtuso, varicibus albis, crassiùsculis, numerosis, inæqualibus; aperturâ parvâ, rotundâ.*

THE MANY-RIBBED SCALARIA. Shell small, fulvous, pyramidal, whorls few, apex obtuse, varices white, rather thick, numerous, unequal; aperture small, rounded.

SOWERBY. Proc. Zool. Soc., 1844.
Hab. Isl. Corrigidor, Philippines.

Species 66. (Mus. Brit.)

SCALARIA MINDOROENSIS. *Sca. testâ albâ, parvâ, imperforatâ, pyramidatâ, spirâ elevatâ, anfractibus quinque, contiguis, varicibus inæqualibus, numerosis, rotundis, simplicibus; aperturâ ovatâ.*

THE MINDORO SCALARIA. Shell white, small, imperforate, pyramidal, spire elevated, whorls five, contiguous, varices unequal, numerous, rounded, simple, aperture ovate.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., fig. 91.

Hab. Puerto Gallero, Isl. Mindoro.

Species 67. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA CATANUENSIS. *Sca. testâ parvâ, brevi, fulvâ, minutissimè spiraliter striatâ, spirâ breviusculâ, anfractibus septem, varicibus minutissimis, tenuissimis, unâ validâ propè aperturam dorso conspicuâ.*

THE CATANUAN SCALARIA. Shell small, short, brown, very minutely spirally striated, spire rather short, whorls seven, varices very minute, very thin, one strong conspicuous on the back near the aperture.

SOWERBY. Proc. Zool. Soc., 1844. Thesaurus Conchyliorum, Sp. 43, fig. 93, 94.

Hab. Catanuan, Isl. Luzon, Philippines.

Species 68. (Mus. Brit.)

SCALARIA PULCHERRIMA. *Sca. testâ parvâ, brevi, ventricosâ, inter varices fusco-pupureâ; spirâ brevi, anfractibus sex, varicibus numerosis, propinquis, obliquis, albis, ad suturam acuminatim lobatis; aperturâ ovatâ, ad suturam lobatâ.*

THE VERY BEAUTIFUL SCALARIA. Shell small, short, ventricose, brownish-purple between the varices; spire short, whorls six, varices numerous, near, oblique, white, acuminately lobed at the suture; aperture ovate, lobed at the suture.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch., Sp. 58, fig. 92.

Hab. Dumaguete, Isl. Negroes, Philippines.

Species 69. (Mus. Brit.)

SCALALARIA CREBERRIMA. *Sca. testâ parvâ, pallidè griseâ, acuminatâ, lævi, imperforatâ, anfractibus paucis, rotundis; varicibus numerosissimis, lævibus, paululùm prominentibus; aperturâ subrotundatâ, labio interno latè reflexo.*

THE CLOSE-RIBBED SCALARIA. Shell small, pale grey, acuminated, smooth, imperforate, whorls few, rounded; varices very numerous, smooth, rather prominent; aperture rather rounded; inner lip widely reflected.

HINDS. Proc. Zool. Soc., 1843. Thesaurus Conchyliorum, Species 56, fig. 95.

Hab. New Guinea.

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75 b

74 a

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74 b

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Sowerby del. et lith.

Vincent Brooks Day & Son, Imp.

SCALARIA.

PLATE X.

Fig. 45, *b.* Mus. Brit. A much more fully developed shell than that figured in the seventh plate.

Species 70. (Mus. Brit.)

SCALARIA MINOR. *Sca. testâ turritâ, gracili, pallidè fulvo spiraliter bifasciatâ; spirâ elongatâ; anfractibus obliquis, prominentibus, suprà subangulatis, infrà spiraliter unicostatis, infrà costam castaneis, longitudinaliter obliquè et arcuatim liratis.*

THE MINOR SCALARIA. Shell turreted, narrow, with two spiral bands of pale brown; spire elongated; whorls oblique, prominent, slightly angular above, with a single spiral rib at the lower part, chestnut below the rib; longitudinally obliquely and sinuously ridged.

SOWERBY.

Acrilla gracilis, A. Adams.

Hab. Mouth of the Indus.

The name *gracilis* having been already applied to another *Scalaria*, cannot be applied to the present species if included in the genus. Would it not be better in separating small groups from old genera, to avoid using specific names already applied to shells belonging to those genera? *Acrilla* may be a very good genus, but its adoption should be left optional, by not using a specific name already occupied in the old genus.

Species 71. (Mus. Brit.)

SCALARIA ATTENUATA. *Sca. testâ parvâ, angustâ, albidâ; spirâ elongatâ, attenuatâ; anfractibus altis, obscurissimè biangulatis et nodosis, suturis crenulato, foveolatis; ultimo anfractu magis prominenti, distinctè nodoso-biangulato; aperturâ rotundâ, labio externo crasso, expanso.*

THE ATTENUATED SCALARIA. Shell small, narrow, whitish; spire elongated, attenuated; whorls elevated, very obscurely biangular and nodose, suture crenulated, pitted; last whorl more prominent, distinctly nodosely biangulated; aperture rounded; outer lip thick, expanded.

PEASE. —— ?

Hab. Sandwich Islands.

This species very nearly resembles *Scalaria bicarinata*, Sowerby. It is, however, narrower and more tapering, and the keels on the last whorl are nodose and much less distinct.

Species 72. (Mus. Brit.)

SCALARIA BAIRDII. *Sca. testâ parvâ, subcæruleâ, lævigatâ, pyramidatâ; anfractibus novem, altis, medio lævigatis, suprà infràque plicatis; plicis ad suturam in nodos elevatis, interstitiis foveolatis; aperturâ parvâ, ovatâ, labio externo rotundo.*

BAIRD'S SCALARIA. Shell small, bluish, smooth, pyramidal; whorls nine, elevated, smooth in the middle, plicated above and below; plaits raised into knobs at the suture, interstices pitted; aperture small, ovate, outer lip rounded.

SMITH. Proc. Zool. Soc., 1871.

Hab. Whydah, South Africa.

This pretty little species is among some very interesting shells brought by Captain Knocker from South Africa, and described by Mr. E. Smith of the British Museum, whose advent we welcome as a working conchologist.

Species 73. (Mus. Brit.)

SCALARIA MIRANDA. *Testâ parvâ, subventricosâ, fulvo-subcæruleâ, inter varices spiraliter tenuissimè striatâ; spirâ acuminatâ, anfractibus octo, rotundis, ultimo anfractu subinflato; varicibus creberrimis, tenuissimis, laminatis; aperturâ ovatâ, columellâ crassâ, arcuatâ, labio externo tenui.*

THE WONDERFUL SCALARIA. Shell small, subventricose, fulvous-greyish, very finely spirally striated between the varices; spire acuminated, whorls eight, rounded, last whorl somewhat inflated; varices very close, very thin, laminar; aperture ovate, columella thick, arched, outer lip thin.

SMITH. Proc. Zool. Soc., 1873.

Hab. Whydah, South Africa.

Another addition to the *Scalariæ* from the same sources as the preceding species.

Species 74. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA ACUMINATA. *Sca. testâ elongatâ, imperforatâ, acuminatâ, pallidè fulvâ, spiraliter fusco bifasciatâ; anfractibus quindecim, paulò convexis, anticè carinatis; varicibus numerosissimis, creberrimis, eleganter curvis; aperturâ longiùsculâ, labio externo tenui, columellâ subcomplanatâ, arcuatâ.*

THE ACUMINATED SCALARIA. Shell elongated, imperforated, acuminated, pale fulvous, with two brown spiral bands; whorls fifteen, little convex, anteriorly keeled; varices very numerous, very close, elegantly curved; aperture rather long, outer lip thin, columella flattened, arched.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Malacca.

The specimens from which figs. *a* and *b* are drawn differ so much in their proportions, that the writer has felt almost inclined to assign a new specific name to fig. *a*. Still we find other species varying in nearly the same degree.

Species 75. (Mus. Brit.)

SCALARIA BOREALIS. *Sca. testâ crassâ, albidâ pyramidatâ, latiùsculâ; anfractibus octo, anticè obtusè carinatis, ad laterâ rectiùsculis, infrà carinam subcomplanatis; varicibus paucis, rotundis, indistinctis, inæqualibus, irregularibus, nonnullis medio subevanidis, ad suturum subnodosis; aperturâ subquadratâ, labio externo crasso, rotundo, columellâ rectiùsculâ, anticè subcuneatâ.*

THE BOREAL SCALARIA. Shell thick, whitish, pyramidal, rather broad; whorls eight, anteriorly obtusely keeled, rather straight at the sides; a little flattened below the keel; varices few, rounded, indistinct, unequal, irregular, some partly disappearing in the middle, somewhat nodose at the suture; aperture squarish, outer lip thick, rounded; columella rather straight, rather cuneate in front.

GOULD. ——?

Hab. Vancouver's Island.

A thick-set irregularly formed species.

Species 76. (Mus. Brit.)

SCALARIA MORCHI. *Sca. testâ parvâ, imperforatâ, attenuatâ, albidâ, apice fulvo; anfractibus octo, elevatis, lævibus, rarissimè varicosis; aperturâ ovatâ, columellâ parvâ, obliquâ.*

MÖRCH'S SCALARIA. Shell small, imperforated, attenuated, whitish, apex fulvous; whorls eight, raised, smooth, very rarely varicose; aperture ovate, columella small, oblique.

ANGAS. Proc. Zool. Soc., 1871.

Hab. Port Jackson.

Species 77. (Mus. Brit.)

SCALARIA POLITA. *Sca. testâ tenui, politissmâ, elongatâ, pallidè griseâ; anfractibus numerosis, convexiùsculis; varicibus subnumerosis, tenuibus, medio anfracturam obsoletis; aperturâ subelongatâ, labio externo tenui.*

THE POLISHED SCALARIA. Shell thin, very polished, elongated, pale grey; whorls numerous, rather convex; varices rather numerous, thin, obsolete in the middle of the whorls; aperture a little lengthened, outer lip thin.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Xipinappi, West Columbia.

A pretty little species in which the varices, forming a little curved node at the suture, thin out and disappear towards the centre of the whorl.

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84 a

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84 b

Sowerby del et lith

Vincent Brooks Day & Son, Imp

SCALARIA.

PLATE XI.

Species 78. (Mus. Brit.)

SCALARIA MODESTA. *Sca. testâ parvâ, imperforatâ, ventricosâ, pallidè fulvâ, breviùsculâ; anfractibus septem, convexiùsculis, varicibus paucis, laminiformibus, simplicibus; aperturâ subrotundâ, labio externo crassiùsculo.*

THE MODEST SCALARIA. Shell small, imperforated, ventricose, pale fulvous, rather short; whorls seven, rather convex, varices few, laminiform, simple; aperture rather round, outer lip rather thick.

C. B. ADAMS. Shells of Jamaica.

Hab. Jamaica.

Species 79. (Mus. Brit.)

SCALARIA PUMILA. *Sca. testâ minutâ, breviùsculâ, imperforatâ, ventricosâ, pallidè fulvâ; anfractibus sex, rotundatis, distinctis; varicibus crassiùsculis, rotundis, approximatis; aperturâ rotundâ.*

THE DWARF SCALARIA. Shell minute, rather short, imperforate, ventricose, pale fulvous; whorls six, rounded, distinct; varices rather thick, rounded, approximate; aperture rounded.

A. ADAMS. Proc. Zool. Soc.

Hab. Japan.

Species 80. (Mus. Brit.)

SCALARIA JUKESIANA. *Sca. testâ, parvâ, albâ, imperforatâ, spirâ elevatâ; anfractibus novem, ad suturam distinctis, varicibus numerosis, sublaminatis, ferè æqualibus, aperturâ ovatâ, labio externo tenuiùsculo, columellâ arcuatâ.*

JUKE'S SCALARIA. Shell small, white, imperforate, spire elevated; whorls nine, distinct at the suture, varices numerous, rather laminar, nearly equal; aperture ovate, outer lip rather thin, columella arched.

FORBES.

Hab. Broken Bay, New South Wales.

The whorls are more distinct and rounded than in *Scalaria clathrus.*

Species 81. (Mus. Brit.)

SCALARIA INDIANORUM. *Sca. testâ pyramidatâ, albâ, imperforatâ; spirâ elevatâ, anfractibus decem, rotundis, distinctis; varicibus numerosis, rotundis, æquidistantibus, æqualibus, propè suturam obtusè angulatis; aperturâ subrotundâ, columellâ infrà subcuneatâ.*

THE INDIAN'S SCALARIA. Shell pyramidal, white, imperforate; spire elevated, whorls ten, rounded, distinct; varices numerous, rounded, equally distant, equal, obtusely angular near the suture; aperture rather round, columella rather cuneate below.

CARPENTER. —— ?

Hab. Vancouver's Island.

Species 82. (Mus. Brit.)

SCALARIA MAGELLANICA. *Sca. testâ albâ, breviùsculâ, solidâ, subventricosâ, imperforatâ, turritâ; spirâ elevatâ, anfractibus altis, scalatis, distinctis, anticè costâ inconspicuâ spirali cinctis; varicibus crassiùsculis numerosis, propè suturam in angulum subrotundum curvis; aperturâ subquadratâ, labio externo posticè angulato; columellâ anticè cuneatâ.*

THE MAGELLAN SCALARIA. Shell white, rather short, solid, subventricose, imperforate, turreted; spire elevated, whorls high, ladder-like, distinct, girt with an inconspicuous spiral rib anteriorly; varices rather thick, numerous, bent in a roundish angle near the suture; aperture rather square, outer lip posteriorly angular; columella anteriorly cuneated.

PHILIPPI. —— ?

Hab. Straits of Magellan.

Belonging to the same group as *Scalaria australis*, but with the whorls fewer, shorter, and more rounded.

Species 83. (Mus. Brit.)

SCALARIA ESCHRICHTI. *Sca. testâ pyramidatâ, pallidè griseo-fulvâ; spirâ elevatâ, acuminatâ, anfractibus octo, vix convexis, ultimo magno, ventricoso, anticè angulato, varicibus nullis, aperturâ magnâ, utrinque acuminatâ; labio externo tenui.*

ESCHRICHT'S SCALARIA. Shell pyramidal, pale grey-fulvous; spire elevated, acuminated, whorls eight, scarcely convex, last large, ventricose, anteriorly angular, varices none, aperture large, acuminated at each end; outer lip thin.

HOLBOLL. —— ?

Hab. Greenland.

Of a similar form to *Scalaria granulosa*, but much lighter in texture and less compact.

Species 84. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA DIADEMA. *Sca. testâ solidâ, brevi, ventricosâ, pallidè fulvâ, vel subcœruleâ, lævigatâ; spirâ brevi, obtusâ, scalatâ; anfractibus quadratis, supernè angulatis, infrà costâ conspicuâ carinatis, costis rotundis, crassis, longitudinalibus propè suturam nodosis sculptis, ultimo nonnunquam planulato, costis longitudinalibus nullis.*

THE DIADEM SCALARIA. Shell solid, short, ventricose, pale fulvous or greyish, smooth; spire short, obtuse, ladder-like; whorls quadrate, angular above, keeled with a conspicuous rib below, sculptured with rounded, thick, longitudinal ribs nodose near the suture, the last sometimes flattened, without longitudinal ribs.

SOWERBY. Thesaurus Conchyliorum, Species 89, fig. 121, 122.

Hab. St. James's Island, Gallapagos.

Species 85. (Mus. Brit.)

SCALARIA OPTABILIS. *Sca. testâ parvâ, brevissimâ, ventricosâ, albidâ, inter varices regulariter pallidè bimaculatâ; spirâ brevi, anfractibus paucis, ultimo anfractu ventricoso, varicibus rotundis, æqualibus, subdistantibus; aperturâ subovatâ.*

THE DESIRABLE SCALARIA. Shell small, very short, ventricose, whitish, with two pale regularly placed spots between the varices; spire short, whorls few, last whorl ventricose, varices rounded, equal, rather distant; aperture subovate.

A. ADAMS. Proc. Zool. Soc.

Hab. —— ?

A remarkable pretty little species.

(Species 86. Mus. Brit.)

SCALARIA CASTA. *Sca. testâ parvâ, acuminatâ, albâ; anfractibus octo, moderate convexis, suturâ distinctâ; varicibus numerosis, inæqualibus, nonnullis crassiùsculis, ad suturam subnodosis; aperturâ ovatâ.*

THE CHASTE SCALARIA. Shell small, acuminated, white; whorls eight, moderately convex, suture distinct; varices numerous, unequal, some rather thick, slightly nodose at the suture; aperture rather oval.

A. ADAMS. Proc. Zool. Soc.

Hab. Japan.

In appearance rather resembling *Scalaria Philippinarum*, but the varices are much more numerous and some of them laminar.

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88 a

88 b

87 b

89 a

89 b

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Sowerby, del. et lith.

Vincent Brooks Day & Son, Imp.

SCALARIA.

PLATE XII.

Species 87. (Mus. —— ? copied.)

SCALARIA EXIMIA. *Sca. testâ parvâ, pallidè fulvâ, spiraliter inter costas striatâ, pyramidatâ, anfractibus decem, rotundis, contigentibus; varicibus regularibus, lævibus, supernè angulatis, ad angulum in spiram acutam productis.*

THE CHOICE SCALARIA. Shell small, pale fulvous, spirally striated between the ribs, pyramidal, whorls ten, rounded contingent; varices regular, smooth, angular above, produced into an acute spire at the angle.

ADAMS AND REEVE. Voy. Samarang. Moll., vol. xi. f. 16.

Hab. ——?

Species 88. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA VULPINA. *Sca. testâ parvâ, aciculatâ, fusco-rubescenti; spirâ acuminatâ, anfractibus distinctis, spiraliter striatis; costis paucis, irregularibus, crassis, rotundis; ultimo anfractu infrà carinato; aperturâ ovatâ, labio externo crasso.*

THE FOXY SCALARIA. Shell small, aciculated, reddish-brown; spire acuminated, whorls distinct, spirally striated; ribs few, irregular, thick, round; last whorl keeled below; aperture ovate, outer lip thick.

HINDS. Proc. Zool. Soc., 1843.

Hab. Malacca.

Species 89. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA DIANÆ. *Sca. testâ parvâ, albidâ, ventricosâ, lævi; anfractu ultimo infrà carinato; varicibus paucis, laminatis, angulatim latè expansis.*

DIANA'S SCALARIA. Shell small, whitish, ventricose, smooth; last whorl keeled below; varices few, laminar, angularly, broadly expanded.

HINDS. Proc. Zool. Soc., 1843.

Hab. Amboyna.

A most wonderful little shell, with broad, wing-like expansions of the varices.

Species 90. (Mus. Brit.)

SCALARIA COCHLEA. *Sca. testâ elongatâ, albâ, spiraliter sulcatâ, anfractibus octo, prominentibus, supernè validè angulatis, longitudinaliter costellis undulatis crebris rugatis; ultimo anfractu infrà carinato; varicibus paucis, distantibus, magnis, supernè angulatis.*

THE STAIRCASE SCALARIA. Shell elongated, white, spirally sulcated, whorls eight, prominent, with a strong angle above, wrinkled with numerous undulating riblets; last whorl keeled beneath; varices few, distant, large, angular above.

SOWERBY. Proc. Zool. Soc.

Hab. West Coast of Africa.

Distinguished from *Scalaria varicosa* by the broad angularity of the whorls.

Species 91. (Mus. —— ? copied.)

SCALARIA PERPLEXA. *Sca. testâ pyramidatâ, albâ, anfractibus suprà pallidè castaneo unifasciatâ; varicibus rotundis, lævibus, subdistantibus.*

THE PERPLEXED SCALARIA. Shell pyramidal, white; whorls single-banded above with pale chestnut; varices rounded, smooth, rather distant.

PEASE. Desh. Conch. Réunion, p. 60, Pl. 8, f. 1.

Hab. Isl. Bourbon.

Species 92. (Mus. Jeffreys.)

SCALARIA TREVELYANA. *Sca. testâ pyramidatâ, fulvâ, anfractibus decem, conjunctis, moderatè convexis;*

varicibus numerosis, planulatis, leviter arcuatis, albescentibus; ad suturam lobatis; aperturâ subovatâ, labio externo albo.

TREVELYAN'S SCALARIA. Shell pyramidal, fulvous, whorls ten, united, moderately convex; varices numerous, flat, slightly arched, whitish; lobed at the suture; aperture subovate, outer lip white.

LEACH ——?

Hab. Great Britain.

Species 93. (Mus. —— ? copied.)

SCALARIA LACTEA. *Sca. testâ minutâ, albâ, pyramidatâ, anfractibus novem; varicibus numerosis, laminatis, extantibus, haud continuis.*

THE MILK SCALARIA. Shell minute, white, pyramidal, whorls nine; varices numerous, laminated, extant, not continuous.

KRAUSS. Sudafrikanischen Mollusken.

Hab. South Africa.

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SCALARIA.

PLATE XIII.

Species 94. (Mus. Brit.)

SCALARIA CRASSICOSTATA. *Sca. testâ parvâ, albâ, brevi; anfractibus paucis; suturâ distinctâ, foveolatâ; ultimo anfractu infrà obscurè carinato; varicibus paucis, crassis, rotundis, lævibus, subdistantibus.*

THE THICK-RIBBED SCALARIA. Shell small, white, short; whorls few; suture distinct, pitted; last whorl obscurely keeled below; varices few, thick, rounded, smooth, rather distant.

SOWERBY. Thesaurus Conchyliorum, Sp. 83, fig. 119.

Hab. —— ?

Not unlike *Scalaria Australis*, but with the ribs and lower keel much less defined.

Species 95. (Mus. Brit.)

SCALARIA CONNEXA. *Sca. testâ minutâ, subcylindricâ, inter costas pallidè purpureâ; spirâ obtusâ; varicibus obliquis, laminatis, albis, crebris, connexis.*

THE CONNECTED SCALARIA. Shell small, subcylindrical, pale purple between the ribs; spire obtuse; varices oblique, laminar, white, close, connected.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Isl. Luzon, Philippines.

Species 96. (Mus. Brit.)

SCALARIA OVALIS. *Sca. testâ minutâ, crassâ, ovatâ, albidâ, intercostas cæruleâ; anfractibus quinque, contiguis, haud prominentibus; varicibus paucis, crassis, suprà suturam elevatis; aperturâ auriformi, margine expanso.*

THE OVAL SCALARIA. Shell minute, thick, ovate, whitish, bluish between the ribs; whorls five, contiguous, not prominent; varices few, thick, elevated above the suture; aperture auriform, margin expanded.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Cagayan, Isl. Mindoro, Philippines.

Species 97. (Mus. Brit.)

SCALARIA SULCATA. *Sca. testâ elongatâ, acuminatâ, tenui, albâ, minutè spiraliter striatâ; spirâ aciculatâ; suturâ distinctâ; varicibus numerosis, laminatis, tenuibus.*

THE SULCATED SCALARIA. Shell elongated, acuminated, thin, white, minutely spirally striated; spire aciculated; suture distinct; varices numerous, laminated, thin.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Catanuan, Isl. Luzon, Philippines.

A most delicately sculptured little shell.

Species 98. (Mus. Brit.)

SCALARIA ACICULINA. *Sca. testâ parvâ, eleganter aciculatâ, inter varices purpureo-fuscâ; anfractibus numerosis, convexiùsculis; varicibus albis, subdistantibus, tenuibus, rotundis, supernè ferè angulatis, continuis.*

THE NEEDLE SCALARIA. Shell small, elegantly acicular, purple-brown between the varices; whorls numerous, rather convex; varices white, rather distant, thin, rounded, nearly angular above, continuous.

HINDS. Proc. Zool. Soc., 1843.

Hab. America.

Species 99. (Mus. Brit.)

SCALARIA GLABRATA. *Sca. testâ pyramidatâ, acuminatâ, nitenti, inter varices maculis tribus pallidè fuscis marmoratâ; varicibus inæqualibus, sequentibus, albis; suturâ profundâ.*

THE SHINING SCALARIA. Shell pyramidal, acuminated, shining, marbled between the varices with three pale brown spots; varices irregular, following, white; suture deep.

HINDS. Proc. Zool. Soc., 1843.

Hab. Maccassar. Malacca.

Species 100. (Mus. —— ?)

SCALARIA NOVANGLIÆ. *Sca. testâ parvâ, fuscâ, spiraliter minutè striatâ, ferè imperforatâ; apice attenuato; varicibus tenuibus, ad suturam acuminatim productis.*

THE NEW ENGLAND SCALARIA. Shell small, brown, spirally minutely striated, nearly imperforate; apex attenuated; varices thin, sharply produced at the suture.

COUTHOY. Boston Journal of Science.

Hab. —— ?

Species 101. (Mus. Brit.)

SCALARIA VESTALIS. *Sca. testâ parvâ, albo-cærulescenti, breviter pyramidatâ; spiraliter minutissimè striatâ; anfractibus rotundis, varicibus simplicibus, minutis; aperturâ ovatâ, majusculâ.*

THE VESTAL SCALARIA. Shell small, bluish white, shortly pyramidal; spirally very minutely striated; whorls rounded, varices simple, minute; aperture ovate, rather large.

HINDS. Proc. Zool. Soc., 1843.

Hab. New Guinea.

Species 102. (Mus. Brit.)

SCALARIA ELENENSIS. *Sca. testâ parvâ, albâ, breviter pyramidatâ; anfractibus paucis, suturâ profundâ; varicibus perpaucis, continuis, simplicibus, ad suturam subplicatis.*

THE ST. ELENA SCALARIA. Shell small, white, shortly pyramidal; whorls few, suture deep; varices very few, continuous, simple, slightly plaited at the suture.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. St. Elena, West Columbia.

A curious little white species, with the varices very far apart, about six in a volution.

Species 103. (Mus. —— ? copied.)

SCALARIA MACULOSA. *Sca. testâ elongatâ, pyramidatâ, acuminatâ; inter varices purpureo maculatâ; varicibus regularibus, supernè angulatis, aperturâ ovatâ.*

THE SPOTTED SCALARIA. Shell elongated, pyramidal, acuminated; spotted with purple between the varices; varices regular, angular above, aperture ovate.

ADAMS AND REEVE. Voy. Samarang, Moll. Pl. XI. f. 14.

Hab. —— ?

Between each varix there is an arranged ornamentation of purplish spots.

104

105

106

107 a

108

109

107 b

110 a

110 b

111

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

SCALARIA.

PLATE XIV.

Species 104. (Mus. Brit.)

SCALARIA SUTURALIS. *Sca. testâ angustâ, acuminatâ, imperforatâ; spiraliter minutè striatâ, albidâ, medio anfractuum fuscâ; anfractibus contiguis, subcompressis, ad suturam carinatis, sulcatis; varicibus rarissimis, rotundis.*

THE SUTURED SCALARIA. Shell narrow, acuminated, imperforate; spirally minutely striated, whitish, brown in the middle of the whorls; whorls contiguous, rather compressed, keeled at the suture and grooved; varices rounded, very infrequent.

HINDS. Proc. Zool. Soc., 1843.

Hab. Malacca.

A *Turritella*-like species, deeply grooved at the suture.

Species 105. (Mus. Brit.)

SCALARIA SUBTILIS. *Sca. testâ parvâ, angustâ; inter varices spiraliter minutissimè striatâ, fuscâ; anfractibus contiguis, lentè crescentibus; varicibus laminatis, crebris, minutè crenulatis.*

THE SUBTLE SCALARIA. Shell small, narrow, spirally very minutely striated, brown; whorls contiguous, slowly increasing; varices laminar, close, minutely crenulated.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. Isle Caminguing and Corregidor, Philippines.

A most delicately sculptured little species.

Species 106. (Mus. Brit.)

SCALARIA FUSCA. *Sca. testâ elevatâ, acuminatâ, elongatâ, imperforatâ, fuscâ, flammis castaneis longitudinalibus pictâ, spiraliter tenuissimè striatâ; anfractibus novem, subrotundis; ultimo infrà obscurè carinato.*

THE BROWN SCALARIA. Shell elevated, acuminated, elongated, imperforate, brown, painted with longitudinal flames, spirally very finely striated; whorls nine, a little rounded; last whorl keeled.

SOWERBY. Proc. Zool. Soc., 1844. Thes. Conch. Scalaria, fig. 138.

Hab. Sierra Leone.

Species 107. (Fig. *a*, *b*.)

SCALARIA GRŒNLANDICA. *Sca. testâ elongatâ, crassâ, spiraliter distanter sulcatâ; anfractibus contiguis, lateraliter subcompressis; varicibus sinuatim arcuatis, decumbentibus, ad suturam elevatis, expansis; aperturâ subtrigonâ.*

THE GREENLAND SCALARIA. Shell elongated, thick, spirally distantly grooved; whorls contiguous, laterally rather compressed; varices sinuously curved, decumbent, raised and expanded at the suture; aperture subtrigonal.

CHEMNITZ. Chemn. II., p. 155, f. 1878-79.

Hab. Newfoundland. Greenland.

Species 108. (Mus. Metcalfe.)

SCALARIA UNDULATA. *Sca. testâ tenui, subpyramidatâ, anfractibus posticè subattenuatis, spiraliter striatis, supernè leviter costatis, infrà planiusculis, carinâ obtusâ cinctis.*

THE WAVED SCALARIA. Shell thin, rather pyramidal, whorls a little attenuated above, spirally striated, slightly ribbed above, rather flattened beneath; encircled with an obtuse keel.

SOWERBY. Proc. Zool. Soc., 1844.

Hab. —— ?

A light species belonging to the same group as *Scalaria granulosa*.

Species 109. (Mus. Brit.)

SCALARIA INDISTINCTA. *Sca. testâ solidiùsculâ, elevatâ, imperforatâ, spiraliter tenuissimè striatâ, longitudinaliter creberrimè costatâ; aperturâ subrotundâ.*

THE INDISTINCT SCALARIA. Shell rather solid, raised, imperforate, spirally very finely striated; longitudinally very finely ribbed; aperture rather rounded.

SOWERBY. Proc. Zool. Soc., 1842.

Hab. Gulf of California.

Species 110. (Fig. *a*, *b*, Mus. Nobis.)

SCALARIA NUDA. *Sca. testâ breviter pyramidatâ, crassâ, lævigatâ; leviter costellatâ, infrà subplanulatâ, varicibus rarissimis distantissimis armatâ.*

THE BARE SCALARIA. Shell shortly pyramidal, thick, smooth; lightly ribbed, partly flattened below, armed with very rare, distant varices.

SOWERBY.

Hab. ——?

Lately in the collection of Mr. A. Adams.

Species 111. (Mus. Adams.)

SCALARIA SUBNUDATA. *Sca. testâ parvâ, tenui, pyramidatâ, spiraliter tenuissimè striatâ; varicibus tenuibus, laminatis, ad suturam et infrà expansis, medio anfractuum fere evanidis.*

THE HALF-BARE SCALARIA. Shell small, thin, pyramidal, spirally very finely striated; varices thin, laminar, expanded at the suture and below, almost disappearing at the middle of the whorl.

SOWERBY.

Scalaria delicatula, H. Adams, Proc. Zool Soc., 1865.

Hab. Philippines.

A pretty little species, the thin varices of which almost disappear in the middle of the whorls. The description of this shell as *Scalaria delicatula*, was published in the proceedings of the Zoological Society in the year following that in which *S. delicatula*, Crosse, appeared in the Journal de Conchyliologie.

112

113a

113b

114a

115

116

114b

117a

117b

118

Sowerby del. et lith.

V.Brooks Day & Son. Imp.

SCALARIA.

PLATE XV.

Species 112. (Mus. ——? Copied.)

SCALARIA PORRECTA. *Sca. pyramidatâ, brevi, turritâ, fuscâ, imperforatâ; anfractibus turritis; varicibus crassis; propè suturam acutè angulatis; interstitiis angustatis; aperturâ subquadratâ, columellâ cuneatâ; labio externo propè suturam angulato.*

THE EXTENDED SCALARIA. Shell pyramidal, short, turrited, brown, imperforate; whorls turrited; varices thick, acutely angular near the suture; interstices narrow; aperture subquadrate, columella cuneate, outer lip angular near the suture.

HINDS. Proc. Zool. Soc., 1843.

Hab. Straits of Malacca.

Species 113. (Fig. *a*, *b*, Mus. ——? Copied.)

SCALARIA VULPINA. *Sca. testâ parvâ, fuscâ, crassâ, spiraliter striatâ; anfractibus convexis; varicibus rotundis, crassis; ultimo anfractu infrà carinâ cinctâ; aperturâ ovatâ, labio externo crasso.*

THE FOX SCALARIA. Shell small, brown, thick, spirally striated; whorls convex; varices rounded, thick; last whorl encircled below with a keel; aperture ovate, outer lip thick.

HINDS. Proc. Zool. Soc., 1843.

Hab. Straits of Malacca.

Species 114. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA DECUSSATA. *Sca. testâ elongatâ, turritâ, anfractibus supernè angulatis, infrà carinatis, liris spiralibus et costellis laqueatis, laminatis, longitudinalibus decussatâ.*

THE DECUSSATED SCALARIA. Shell elongated, turrited, whorls narrow above, keeled below, decussated with spiral ridges and fluted laminated longitudinal ribs.

LAMARCK. Anim. sans vert.

Scalaria cancellata, Humphreys.

Hab. Mauritius.

Species 115. (Mus. Nobis.)

SCALARIA DELICATULA. *Sca. testâ tenui, acuminatâ, minutissimè spiraliter striatâ; anfractibus numerosis, rotundis; costis inæqualibus, plerumque laminatis, nonnullis incrassatis, ad suturam simplicibus, ultimo anfractu carinâ parvâ, distinctâ cincto.*

THE DELICATE SCALARIA. Shell thin, acuminated, very minutely spirally striated; whorls numerous, rounded; ribs unequal, for the most part laminar, some thickened, simple at the suture, last whorl encircled with a small distinct keel.

CROSSE. Journ. de Conch., 1864.

Hab. Australia.

Species 116. (Mus. Nobis.)

SCALARIA ATTENUATA. *Sca. testâ angustâ, attenuatâ, imperforatâ; anfractibus rotundis, suturâ profundâ; varicibus crassiusculis, prominentibus, distantibus, obliquè continuis.*

THE ATTENUATED SCALARIA. Shell narrow, attenuated, imperforate; whorls round, suture deed; varices rather thick, prominent, distant, obliquely continuous.

SOWERBY.

Hab. ——?

More attenuated than *Scalaria Philippinarum*, with the varices more distant.

Species 117. (Fig. *a*, *b*, Mus. Barclay.)

SCALARIA LATIFASCIATA. *Sca. testâ latè pyramidatâ, perforatâ, albâ, vel pallidè fulvâ, fasciis tribus fuscis, medianâ latâ, spiraliter pictâ; anfractibus rapidè crescentibus, rotundis; varicibus numerosis, tenuibus, laminatis, ad suturam simplicibus.*

THE BROAD-BANDED SCALARIA. Shell broadly pyramidal, perforated, white, or pale fulvous, spirally painted with three brown bands, the middle one broad; whorls rapidly increasing, rounded; varices numerous, thin, laminar, simple at the sutures.

SOWERBY.

Hab. Maheburg, Mauritius.

Collected by Sir David Barclay on sandy mud. In the white variety the very slightest indication of brown bands may be detected. The *Scalaria trifasciata* of the Thesaurus is a much shorter shell and the bands are linear.

Species 118. (Mus. Nobis.)

SCALARIA TENUILIRATA. *Sca. testâ parvâ, perforatâ, latè pyramidatâ, inter varices lævigatâ, purpureo-fuscâ; anfractibus sex, rapidè crescentibus, rotundis, suturâ profundâ; varicibus creberrimis, inæqualibus, tenuibus, reflexis, rotundatis.*

THE THIN-RIDGED SCALARIA. Shell small, perforated, broadly pyramidal, smooth, purple-brown between the varices; whorls six, rapidly increasing, rounded with deep suture; varices very close, unequal, thin, reflected, rounded.

SOWERBY.

Hab. Japan.

119

120 a

120 b

121 a

122

123

121 b

124

125

9 b

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

SCALARIA.

PLATE XVI.

Species 119. (Fig. *a*, *b*, Mus. (olim) Metcalfe.)

SCALARIA MULTISTRIATA. *Sca. testâ parvâ, elevatâ, spiraliter tenuissimè striatâ; anfractibus novem, subrotundis, lentè crescentibus; varicibus numerosissimis, laminatis, extantibus, ad suturam in angulum acutum elevatis.*

THE MANY-STRIATED SCALARIA. Shell small, raised, spirally very finely striated; whorls nine, rather rounded, slowly increasing; varices very numerous, laminated, standing out, elevated in a sharp angle at the suture.

SAY. Amer. Journ. Sci.

Scalaria pulchella, Bivon.

Hab. North America.

The three small species with minute striæ, somewhat resembling each other, may thus be distinguished. *Scalaria delicatula* has the fine varices rounded at the suture, and it is very narrow. *Scalaria subnudata* has them raised at the sutures and almost obsolete at the centre of the whorl, and *Scalaria multistriata* has them raised in an acute angle at the sutures and by no means thinned away in the centre.

Species 120. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA CRASSILABRUM. *Sca. testâ albidâ, imperforatâ, elongatâ, spiraliter minutissimè striatâ; anfractibus septem, biangulatis, subobsoletè costellatis; varicibus nullis; aperturâ subrotundâ, margine crasso, expanso, minutè striato.*

THE THICK-LIPPED SCALARIA. Shell nearly white, imperforate, elongated, spirally very minutely striated; whorls seven, biangular, rather obsoletely ribbed; varices none; aperture rather rounded; with thick, expanded, minutely striated margin.

SOWERBY. Thesaurus Conchyliorum, Scalaria, sp. 87, fig. 115, 116.

Hab. Philippines. Central America.

Species 121. (Fig. *a*, *b*, Mus. Brit.)

SCALARIA UNDULATISSIMA. *Sca. testâ albâ, tenui, pyramidatâ, perforatâ, spiraliter minutissimè striatâ; anfractibus circâ novem, subrapidè crescentibus, ad suturam canaliculatis; varicibus inæqualibus, tenuibus, rarissimè crassioribus, concinnè undulatis, prope suturam aculeatis; umbilico parvo; aperturâ subovatâ, margine columellari tenui, sinuato, margine externo supernè crenulato, propè suturam aculeato.*

THE MUCH-WAVED SCALARIA. Shell white, thin, pyramidal, perforated, spirally very minutely striated; whorls about nine, rather quickly increasing; channelled near the suture; varices unequal, thin, very rarely thicker, neatly undulated, aculeated near the suture; umbilicus small; aperture subovate, columellar margin thin, sinuous, outer margin crenulated above, aculeated near the suture.

SOWERBY.

Hab. —— ?

M. Nyst publishes in his "Tableau Synoptique," a fossil species in which the varices are undulated; something the same manner, but more coarsely than in this shell. I know of no other example of this beautifully delicate sculture.

Species 122. (Fig. *a*, *b*, Mus. Nobis.)

SCALARIA JAPONICA. *Sca. testâ parvâ, albâ, lævigatâ, imperforatâ; anfractibus rotundis, vix contiguis; varicibus laminatis, solidiùsculis, subdistantibus, obliquè continuis.*

THE JAPAN SCALARIA. Shell small, white, smooth, imperforate; whorls rounded, scarcely touching; varices laminar, rather solid, a little distant, obliquely continuous.

NYST. Tab. Syn., 1871.

Scalaria elegans, A. Adams.

Hab. Japan.

Species 123. (Mus. Nobis.)

SCALARIA MÖRCHII. *Sca. testâ parvâ, albidâ, angustâ, spiraliter densè striatâ; anfractibus numerosis, lentè crescentibus; varicibus creberrimis, crassiùsculis, ad suturam paulò expansis.*

MÖRCH'S SCALARIA. Shell small, whitish, narrow, spirally closely striated; whorls numerous, slowly increasing; varices very close, rather thick, a little expanded at the suture.

ANGAS. ——?

Hab. ——

Species 124. (Mus. Barclay.)

SCALARIA ABBREVIATA. *Sca. testâ brevi, crassâ, subcæruleâ, imperforatâ, spiraliter sulcatâ, costis planulatis, undulatis, uno latere angulatim laqueatis, ad suturam aculeatis, ad carinam inferiorem prominentibus ornatâ; interstitiis ad suturam et ad carinam profundè foveolatis; anfractibus paucis, supernè subdeclivis; ultimo anfractu infrà carinato, ad marginem aperturæ incrassato; varicibus magnis, crassis, crenulatis, perpaucis; aperturâ subrotundâ, margine crasso, crenato.*

THE ABBREVIATED SCALARIA. Shell short, thick, bluish, imperforate, spirally grooved, ornamented with flattened, undulated ribs, angularly fluted on one side, aculeated at the suture, prominent at the lower keel; interstices deeply sloped above; last whorl keeled below, thickened at the edge of the aperture; varices large, thick, crenulated, very few; aperture rather round, margin thick, crenated.

SOWERBY.

Hab. Tamarind Bay, near Black River, Mauritius.

This is figured in Thesaurus as a variety of *Scalaria varicosa*, from which subsequent examination compels me now to distinguish it.

Species 125. (Mus. Sir D. Barclay.)

SCALARIA MULTIPERFORATA. *Sca. testâ pallidè fulvâ, acuminatâ, costis latis, decumbentibus, undulatis, uno latere angulatim laqueatis sculptâ; interstitiis, concinnè foveolatis; anfractibus compressis, ad suturam canaliculatis, aculeis elevatis coronatis; ultimo anfractu infrà carinato, ad carinam foveolato; varicibus perpaucis, irregularibus, crassis, prominentibus, ad suturam elevatis, productis.*

THE MANY-HOLED SCALARIA. Shell pale, fulvous, acuminated, sculptured with broad, decumbent, undulated ribs, angularly fluted on one side; interstices neatly pitted; whorls compressed, channelled at the suture, crowned with raised points; last whorl keeled below, pitted at the keel; varices very few, irregular, thick, prominent, raised and produced at the suture.

SOWERBY.

Hab. Black River Bay, Mauritius.

The sculpture of this little shell is exquisite, the flattened ribs being fringed on one side with an angular fluting which leaves little distinct perforations against the back of the adjoining rib. There is an obsolete tendency to the same arrangement of sculpture in *Scalaria varicosa* and *S. abbreviata*, which belong to the same group, but are not nearly so narrow and acuminated, and have not the whorls so laterally compressed.

(Fig. 9, *b*, Pl. II. Mus. Sir D. Barclay.)

SCALARIA RARISCOSTATA. This exquisite specimen was dredged by Sir David Barclay, Bart., off Round Island, Mauritius. The ordinary specimens give no idea of the beautiful sculpture which belongs to the shell when in perfect condition. Besides the four larger ribs which in this specimen are crowded in the last whorl, the whole shell is sculptured with fringed and aculeated lesser varices.

SCALARIA.

	Plate.	Species.
abbreviata, *Sowerby*	XVI.	124
aciculina, *Hinds*	XIII.	98
aculeata, *Sowerby*	VII.	46
acuminata, *Sowerby*	X.	74
alata, *Sowerby*	III.	15
albolineata, *Sowerby*	VIII.	57
angulata, *Say*	III.	14
attenuata, *Pease*	X.	71
attenuata, Sowerby (by error)	XV.	116
aurita, *Sowerby*	V.	30
Australis, *Lamarck*	I.	3
Bairdii, *Smith*	X.	72
bicarinata, *Sowerby*	VIII.	60
borealis, *Gould*	X.	75
bulbulus, *Sowerby*	IX.	62
bullata, *Sowerby*	II.	8
cancellata, Humphreys	XV.	114
casta, *A. Adams*	XI.	86
Catanuensis, *Sowerby*	IX.	67
clathratula, *Montague*	VIII.	54
clathrus, *Linn*	V.	33
clathrus, Gmel.	I.	5
cochlea, *Sowerby*	XII.	90
communis, *Lamarck*	I.	5
concinna, *Sowerby*	VII.	50
connexa, *Sowerby*	XIII.	95
continuata, *Sowerby*	XV.	95
coronata, *Lamarck*	V.	34
costulata, Keiner	III.	12
crassa, *Sowerby*	IV.	25
crassicostata, *Sowerby*	XIII.	94
crassilabrum, *Sowerby*	XVI.	120
creberrima, *Hinds*	IX.	69
crenata, *Linn.*	III.	19
curvilineata, *Sowerby*	VII.	49
decussata, *Lamarck*	XV.	114
delicatula, *Crosse*	XV.	115
delicatula, H. Adams	XIV.	111
denticulata, *Sowerby*	VI.	42
diadema, *Sowerby*	XI.	84
Dianæ, *Hinds*	XII.	89
dubia, *Sowerby*	VII.	45
elegans, A. Adams	XVI.	122
Elenensis, *Sowerby*	XIII.	102
Eschrichti, *Holboll*	XI.	83
eximia, *Adams & Reeve*	XII.	87
fasciata, *Sowerby*	III.	13
fimbriata, Lamarck	II.	11
fragilis, *Hanley*	V.	29
friabilis, *Sowerby*	VII.	52
fusca, *Sowerby*	XIV.	106
Georgettina, *Kiener*	V.	36
glabrata, *Hinds*	XIII.	99
gracilis, *Sowerby*	VIII.	53
gracilis, A. Adams	X.	70
gradata, *Hinds*	I.	2
granulata, *Quoy*	V.	35
Grœnlandica, *Chemnitz*	XIV.	107
hexagona, *Sowerby*	IV.	27
Humphreysiana, Keiner	III.	14
hyalina, *Sowerby*	VI.	41
immaculata, *Sowerby*	IV.	24
imperialis, *Sowerby*	I.	6
inconspicua, *Sowerby*	VIII.	58
Indianorum, *Carpenter*	XI.	81
irregularis, *Sowerby*	IV.	26
indistincta, *Sowerby*	XIV.	109
Japonica, *Nyst*	XVI.	122
Jukesiana, *Forbes*	XI.	80
lactea, *Krauss*	XII.	93
lamellosa, Lamarck	V.	33
latifasciata, *Sowerby*	XV.	117
laxata, *Sowerby*	VI.	38
lineata, *Say* ——?	VIII.	56
lineolata, *Sowerby*	V.	32
lyra, *Sowerby*	IV.	23
maculosa, *Adams and Reeve*	XIII.	103
Magellanica, *Philippi*	XI.	82
magnifica, *Sowerby*	II.	10
marmorata, *Sowerby*	III.	16
Martinii, *Wood*	III.	20
Mindorœnsis, *Sowerby*	IX.	66
minor, *Sowerby*	X.	70
miranda, *Smith*	X.	73

	Plate.	Species.
mitræformis, *Sowerby*	VI.	44
modesta, *C. B. Adams*	XI.	78
monocycla, Keiner	V.	33
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nuda, *Sowerby*	XIV.	110
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subtilis, *Sowerby*	XIV.	105
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trifasciata, *De Haen*	VII.	47
trifasciata, Keiner	V.	32
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varicosa, *Lamarck*	II.	11
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vulpina, *Hinds*	XII. XV. sp.	88, fig. 113

MONOGRAPH

OF THE GENUS

CUMINGIA.

"From thy coral haven bed."—*Milton.*

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

CUMINGIA.

PLATE I.

Genus CUMINGIA, *Sowerby.*

Testa æquivalvis, inæquilateralis, anticè rotunda, posticè angustata depressa, paulò hians; dentes cardinali utrâque valvâ duo, minuti; laterales in alterâ valvâ duæ. Ligamentum in foveam cochleariformem medianam affixum. Impressiones musculares duæ, laterales elongati. Impressio pallii sinu magno recurvo.

Shell equivalve, inequilateral, anteriorly rounded, posteriorly narrowed, depressed, a little gaping; cardinal teeth two, minute, in each valve; lateral, two in one valve. Ligament fixed in a central spoon-shaped pit. Muscular impressions two, lateral elongated. Impression of the mantle bent back with a large sinus.

The *Cumingiæ* are often very irregularly formed, because they live in crevices of rocks and hollows of sponges. They are found in Australia, and in both East and West Indies. The West Coast of America and the Philippine Islands have also contributed species.

Species 1. (Mus. Brit.)

CUMINGIA TELLINIDES. *Cum. testâ subcompressâ, minutissimè striatâ, anticè rotundâ, subinflatâ; posticè rostratâ, acuminatâ, margine ventrali coarctato, margine dorsali declivi.*

THE TELLINA-LIKE CUMINGIA. Shell compressed, very finely striated, anteriorly rounded, a little inflated; posteriorly beaked, acuminated, ventral margin contracted, dorsal margin sloped.

CONRAD. ——?

Hab. California. Maine, U. States.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

CUMINGIA CLERII. *Cum. testâ subtrigonâ, compressâ, complanatâ, lævigatâ; latere postico elongatiùsculo, latiùsculo; latere antico subacuminato, valdè declivi.*

CLERK'S CUMINGIA. Shell subtrigonal, compressed, flattened, smooth; posterior side rather longer and wider; anterior side a little acuminated, much sloped.

A. ADAMS. Proc. Zool. Soc.

Hab. Chili.

Species 3. (Mus. Brit.)

CUMINGIA MUTICA. *Cum. testâ subovatâ, pallidè fusco-rubescenti, minutissimè decussatim striatâ; latere antico lato, inflato, margine ventrali convexo; latere postico subrostrato, margine ventrali contracto, ad terminum subrostrato margine dorsali valdè declivi, termino obliquè truncato.*

THE PLAIN CUMINGIA. Shell subovate, pale reddish-brown, very minutely decussately striated; anterior side broad, inflated, with ventral margin convex; posterior side subrostrated with ventral margin contracted, dorsal margin much sloped downwards, end obliquely truncated.

SOWERBY. Proc. Zool. Soc., 1833.

Hab. Chili, Peru.

This and nearly all the species appear very finely striated when viewed with a lens.

Species 4. (Mus. Brit.)

CUMINGIA TRIGONULARIS. *Cum. testâ robustâ, trigono-subquadratâ, posticè brevi, subangulatâ, truncatâ, margine dorsali valdè declivi; irregulariter concentricè laminatâ, laminis extantibus, nonnullis latis.*

THE THREE-SIDED CUMINGIA. Shell robust, squarish-trigonal, posteriorly short, rather angular, truncated with dorsal margin much sloped; irregu-

larly concentrically laminated, lamina standing out, some broad.

SOWERBY. Proc. Zool. Soc., 1833.

Hab. Chili?

The most irregularly laminated of all the species, and the most triangular in form.

Species 5. (Mus. Brit.)

CUMINGIA LAMELLOSA. *Cum. testâ oblongâ, regulariter concentricè laminatâ, laminis angustibus, extantibus, distantibus; latere antico brevi, rotundo; latere postico angulato, acuminato, subrostrato; margine ventrali propè terminum contracto; margine dorsali decliri.*

THE LAMELLAR CUMINGIA. Shell oblong, regularly concentrically laminated, laminæ narrow, standing out, distant; anterior side short, rounded; posterior side angular, acuminated, subrostrated; ventral margin contracted near the end; dorsal margin sloped.

SOWERBY. Proc. Zool., 1833.

Hab. Chili.

Species 6. (Mus. Brit.)

CUMINGIA SIMILIS. *Cum. testâ ovato-subtrigonâ, lævigatâ, laminis paucis concentricis ornatâ; latere antico inflato, rotundo; latere postico rostrato, ad terminum marginis ventralis subacuminato.*

THE SIMILAR CUMINGIA. Shell ovate-subtrigonal, smooth, ornamented with few concentric laminæ; anterior side inflated, rounded; posterior side beaked slightly, acuminated at the end of the ventral margin.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. N.W. Coast of America.

Differing from the preceding species chiefly in the fewness and irregularity of the laminæ.

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Sowerby del. et lith.

Vincent Brooks Day & Son, Imp.

CUMINGIA.

PLATE II.

Species 7. (Fig. *a*, *b*, Mus. Brit.)

CUMINGIA COARCTATA. *Cum. testâ parvâ, regulariter concentricè liratâ; inter liris tenuissimè radiatim striatâ; anticè subquadratâ, inflatâ, posticè depressâ, contractâ, declivi, ad terminum marginis ventralis acuminatâ.*

THE CONTRACTED CUMINGIA. Shell small, regularly concentrically ridged; very finely radiately striated between the ridges; anteriorly subquadrate, inflated, posteriorly depressed, contracted, sloped downward, acuminated at the end of the ventral margin.

SOWERBY. Proc. Zool. Soc., 1833.

Hab. Philippines.

Species 8. (Fig. *a*, *b*, Mus. Brit.)

CUMINGIA ANTILLARUM. *Cum. testâ parvâ, tenui, minutè regulariter concentricè laminatâ; subovatâ, vel subtrigonâ; posticè subacuminatâ.*

THE ANTILLES CUMINGIA. Shell small, thin, minutely regularly concentrically laminated; somewhat ovate, or subtrigonal; posteriorly, rather acuminated.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. West Indies.

Species 9. (Mus. Hargreaves.)

CUMINGIA ELEGANS. *Cum. testâ parvâ, obliquè subovatâ, eleganter crebrè concentricè liratâ; latere antico breviusculo, rotundo, inflato; latere postico subangulato, ante angulum contracto.*

THE ELEGANT CUMINGIA. Shell small, obliquely subovate, elegantly closely concentrically ridged; anterior side rather short, rounded, inflated; posterior side rather angular, contracted in front of the angle.

SOWERBY.

Thyella lamellosa, H. Adams.

Hab. Australia.

The want of developed lateral teeth in either valve has caused the separation of this and other species from the genus; and in replacing it we are obliged to apply a new specific name, that of *lamellosa* being previously occupied in *this* genus.

Species 10. (Mus. Brit.)

CUMINGIA VENTRICOSA. *Cum. testâ solidâ, roseo-pallidâ, fasciatâ, minutissimè striatâ, brevi, inflatâ; latere antico rotundo, ventricoso; latere postico acuminato, declivi.*

THE VENTRICOSE CUMINGIA. Shell solid, banded with pale rose, very minutely striated, short, inflated anterior side rounded, ventricose; posterior side acuminated, sloped downward.

SOWERBY.

Hab. Probably Chili.

Much shorter and more inflated than *Cumingia mutica*.

Species 11. (Mus. Brit.)

CUMINGIA GRANDIS. *Cum. testâ solidâ, albâ, opacâ, subcompressâ, dilatatâ; latere antico breviusculo, rotundo; latere postico rostrato, compresso, valdè declivi, acuminato.*

THE LARGE CUMINGIA. Shell solid, white, opaque, subcompressed, dilated; anterior side rather short, rounded; posterior side beaked, compressed, much sloped, acuminated.

DESHAYES.

Hab. Chili.

A species of very dilated and rather flattened form, but quite possibly a variety of *Cumingia mutica*.

Species 12. (Mus. Hargreaves.)

CUMINGIA HARGREAVESII. *Cum. testâ parvâ, subquadratâ, lævi; latere antico brevissimo, declivi, obtuso,*

inflato; latere postico validè arcuatim rostrato, margine ventrali ante rostrum contracto, margine dorsali valdè declivi.

HARGREAVE'S CUMINGIA. Shell small, subquadrate, smooth; anterior side very short, sloped, obtuse, inflated; posterior side strongly beaked with a curve, ventral margin contracted in front of the beak, dorsal margin much sloped.

H. ADAMS (Thyella). Proc. Zool. Soc., 1873.

Hab. New Hebrides.

The writer has not seen the type of Mr. Adams's genus THYELLA. The two species included in this monograph of *Cumingia* are all which the genus contains excepting the type.

Species 13. (Fig. *a*, *b*, Mus. Brit.)

CUMINGIA CALIFORNICA. *Cum. testâ irregulariter lamellosâ, posticè cuneatâ, brevi; anticè inflatâ, expansâ, margine dorsali elevato, ventrali convexo.*

THE CALIFORNIAN CUMINGIA. Shell irregularly lamellated, posteriorly cuneate, short; anteriorly inflated, expanded with the dorsal margin elevated, ventral margin convex.

CONRAD. Journ. A. N. S. Phil., vol. vii. pl. 17, f. 12.

Hab. California.

MONOGRAPH

OF THE GENUS

GLYCIMERIS.

"O'er the deep! o'er the deep!
Where the whale, and the shark, and the sword-fish sleep!"—*Barry Cornwall.*

1a

1b

Sowerby del et lith.

Vincent Brooks Day & Son, Imp

GLYCIMERIS.

PLATE I.

Genus GLYCIMERIS, *Lamarck.*

Testa transversè oblonga, bivalvis, bimusculosa, æquivalvis, crassa, epidermide nigra cornea induta; margine cardinali edentulo. Ligamentum magnum externum fulcrum magnum affixum. Impressiones musculares complexi, pallii irregulariter integer.

Shell transversely oblong, bivalve, bimuscular, equivalve, thick, covered with a black, horny epidermis; hinge margin toothless. Ligament large, external. Muscular impressions complex, that of the mantle irregularly entire.

SYN. *Cyrtodaria*, Daudin.

The single species which composes this genus, presents an assemblage of characters which make it difficult to determine its place. Having neither internal cartilaginous pit nor appendage, it certainly does not belong to the genus *Mya*, with which it was formerly united. Yet, as in *Mya*, *Panopæa*, &c., the parts of the animal not covered by the shell are provided with a wrinkled coriaceous covering. It is a mollusc of littoral habits and, as might be suggested by its appearance, belongs to northern and arctic seas. In the general characters of the shell it seems, with *Solenimya*, to approach the family of *Solenidæ*.

Species 1. (Mus. Sowerby.)

GLYCIMERIS SILIQUA. *Gly. testâ oblongâ, crassâ, utrinque hianti, extùs epidermide crassâ, nigrâ, obliquè rugatâ indutâ; intùs calcareâ, irregulariter incrassatâ et laceratâ; latere postico breviùsculo margine dorsali semilunari; medio compresso, margine ventrali rectiùsculo; cardine eduntulâ, fulcro ligamentifero maximo.*

THE SWORD GLYCIMERIS. Shell oblong, thick, gaping on both sides, covered outside with a thick, black epidermis, obliquely wrinkled; calcareous within, irregularly thickened and jagged; posterior side rather the shorter, dorsal margin semilunar; middle compressed, ventral margin rather straight; hinge toothless, ligamentiferous fulcrum very large.

LAMARCK. Anim. sans Vert., vol. vi. p. 69.

Mya picea, Wood.

Hab. Arctic Coasts.

The so-called *Glycimeris arctica* and *Glycimeris edentula* do not belong to this genus. The first is a *Panopæa*.

August, 1873.

MONOGRAPH

OF THE GENUS

CYPRINA.

"Have I not heard the sea, puff'd up with wind,
Rage like an angry boar?"—*Shakspeare.*

1a

1b

Sowerby. del et lith

Vincent Brooks Day & Son Imp.

CYPRINA.

PLATE I.

Genus CYPRINA, *Lamarck.*

Testa bivalvis, ovalis, bimusculosa, marina, æquivalvisa, epidermide subrugo â, crassâ indutâ; umbones curvi; dentes in utrâque valvâ tres cardinales uno lateralis posticus, remotus. Impressiones musculares in utrâque valvâ duæ, laterales distantes. Impressio muscularis pallii integer. Ligamentum externum, partim in sinu marginali immersum.

Shell bivalve, oval, bimuscular, marine, equivalve, covered with a subrugose, thick epidermis; umboes curved; three cardinal teeth in each valve, one posterior, lateral remote. Muscular impressions two, lateral distant. Muscular impressions of the mantle entire. Ligament external, partly inserted in a marginal sinus.

There appears to be really only one recent species of this genus, which belongs to the northern seas of Europe. It is a very Venus-like shell, with the hinge of the Cytherea group, but having one very long, distant posterior lateral tooth.

Species 1. (Fig. *a*, *b*, Mus. MacAndrew.)

CYPRINA ISLANDICA. *Cyp. testâ subovato-rotundâ, solidâ, epidermidè striatâ, crassâ, fuscâ vel nigrâ indutâ; latere antico brevi, margine dorsali declivi, umbonibus arcuatis, prominentibus, margine ventrali convexo; latere postico subquadrato, margine terminali subtruncato, margine dorsali arcuato.*

THE ICELAND CYPRINA. Shell, subovate, rounded, solid, covered with a thick, striated brown or black epidermis; anterior side short, dorsal margin sloped, umboes arched, prominent, ventral margin convex; posterior side subquadrate, terminal margin slightly truncated, dorsal margin arched.

LINNÆUS. (Venus) Systema Naturæ.

Cyprina vulgaris, Sowerby.

Venus bucardium, Born.

Hab. Northern British and Scandinavian Coasts.

Fig. 1, *a*, represents an elliptical form not differing sufficiently from the normal to justify a specific separation.

August, 1873.

MONOGRAPH

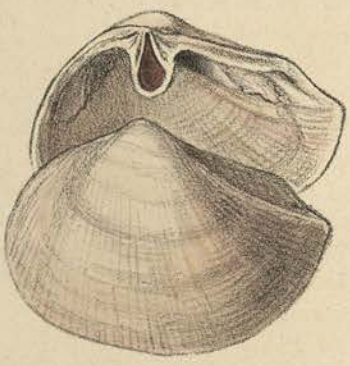
OF THE GENUS

ANATINELLA.

"Sun and moon and stars shine o'er thee,
See thy surface ebb and flow,
Yet attempt not to explore thee
In thy soundless depths below."—*Bernard Barton.*

1a

1b



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Sowerby, del et lith

Vincent Brooks Day & Son, Imp.

ANATINELLA.

PLATE I.

Genus ANATINELLA, *Sowerby.*

Testa transversè oblonga, æquivalvis, tenuis, epidermide tenui induta, alba, posticè paulò hians. Cardo angustus, processu cochleariformi cartilaginem ferenti medio in utrâque valva affixo, dentibus cardinalibus duobus parvis ante processum positis. Impressiones musculares duo que oblongæ. Impressio pallii integra.

Shell transversely oblong, equivalve, thin, covered with a thin epidermis, white, a little gaping posteriorly. Hinge narrow, with a cartilage holding spoon shaped process fixed in the middle of each valve, and two small cardinal teeth placed before the process in each valve. Muscular impressions two, oblong. Impression of the mantle entire.

This interesting genus of Anatina-like shells is alike in both valves, having a spoon-shaped process in each, thus differing from *Mya*, which has that provision only in one. *Lutraria* has both, but differs in obvious particulars, and *Anatina* proper is characterized by a similar contrivance, and also by a sort of strengthening rib under the umbones. China, Ceylon, and the Philippines, are the known localities of the few species with which we are acquainted.

Species 1. (Fig. *a*, *b*, Mus. Norris.)

ANATINELLA SIEBBALDII. *Ana. testâ sub-ovatâ, subæquilaterali, ventricosâ; minutissimè radiatim striatâ; latere antico rotundo, latere postico ad terminum truncato obliquè subcarinato; margine dorsali depresso; margine ventrali æqualiter convexo; processu in utrâque valvâ magno.*

SIEBBALD'S ANATINELLA. Shell subovate, subequilateral, ventricose; very minutely radiately striated; anterior side rounded, posterior side truncated at the end; dorsal margin depressed; ventral margin equally convex; process large in each valve.

SOWERBY. Genera of Shells.

This species is supposed by some conchologists to be identical with *Mya candida* of Chemnitz, but it is much more ovate in form, besides being nearly equilateral.

Species 2. (Mus. Brit.)

ANATINELLA CÁNDIDA. *Ana. testâ oblongâ, inæquilaterali, radiatim minutè serrato-striatâ; latere postico producto, angusto, obliquè truncato, radiatim acutè carinato, margine ventrali valdè sursum acclivi, tùm inflato, versùs antè medium subcontracto; latere antico brevi; processu cardinali maximo.*

THE WHITE ANATINELLA. Shell oblong, inequilateral, radiately minutely serrato-striated; posterior side produced, narrow, obliquely truncated, radiately sharply keeled, ventral margin much sloped upwards, then inflated, slightly contracted before the middle; anterior side short; cardinal process very large.

A. ADAMS. Proc. Zool. Soc., 1850, p. 41.

Hab. China.

Species 3. (Mus. Brit.)

ANATINELLA VENTRICOSA. *Ana. testâ oblongâ, valdè inæquilaterali, radiatim minutè serrato-striatâ; latere postico angusto, attenuato, obliquè truncato, obscurè carinato; margine ventrali sursùm acclivi, medio contracto; latere antico lato, subrotundo, inflato.*

THE VENTRICOSE ANATINELLA. Shell oblong, very inequilateral, radiately minutely serrato-striated; posterior side narrow, attenuated, obliquely truncated, obscurely keeled; ventral margin sloped upwards, contracted in the middle; anterior side broad, rather round, inflated.

A. ADAMS. Proc. Zool. Soc., 1851, p. 41.

Hab. Puteao, Philippines.

More elongated and unequally inflated than *Anatinella candida.*

August, 1873.

Species 4. (Mus. Brit.)

ANATINELLA DILATATA. *Ana. testâ ovatâ, subcompressâ, minutissimè striatâ; latere postico longiùsculo, obliquè carinato, post carinam latè truncato, dilatato, subrugato; margine ventrali convexo; latere antico breviùsculo, rotundo.*

THE DILATED ANATINELLA. Shell ovate, subcompressed, minutely striated; posterior side, rather the longer; obliquely keeled, broadly truncated behind the keel, dilated, slightly wrinkled; ventral margin convex; anterior side rather short, rounded.

A. ADAMS. Proc. Zool. Soc., 1851, p. 41.

Hab. Puteao, Philippines.

More compressed and broader posteriorly than the other species.

MONOGRAPH

OF THE GENUS

PLICATULA.

"What hid'st thou in thy treasure caves and cells,
Thou hollow-sounding and mysterious main?"—*Mrs. Hemans.*

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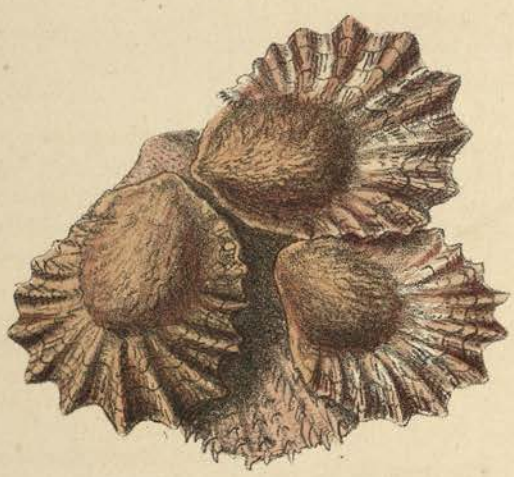


4a

4b

4c

4d

Sowerby del et lith

Vincent Brooks Day & Son Imp

PLICATULA.

PLATE I.

Genus PLICATULA, *Lamarck.*

Testa unimusculosa, inæquivalvis, plicata, irregularis, per apicem valvæ dextræ adhærens; umbones inæquales, vix auriculatæ; area cardinalis, in valvâ dextrâ parva; dentes cardinales utrâque valvâ duæ, divergentes transversè striata; foveola ligamentifera inter dentes utrâque valvâ trigona.

Shell with a single muscle, inequivalve, plaited irregular, fixed by the apex of the right valve; umboes unequal, scarcely auriculated; cardinal area in the right valve small; two divergent, transverse, cardinal teeth in each valve striated transversely; a trigonal ligamentiferous pit in each valve between the teeth.

Plicatula is a well defined genus of shells always to be recognised by the teeth and folds. Eight species were described in the latest Monograph, that of the Thesaurus by Sowerby. Of the remaining five, two have been described since, and three are here presented.

The Philippines, Australia, New Zealand, and the shores of Western America furnish all the species described in this Monograph, with the exception of *Plicatula Ceylonica*, and the little *Plicatula simplex* from China.

Species 1. (Mus. Brit.)

PLICATULA NOVÆ ZELANDIÆ. *Pli. testâ tenui, albâ, depressâ, ad laterâ foliaceâ; plicis numerosis, obtusis hinc-illic divisis, ad marginem dentiformibus.*

THE NEW ZEALAND PLICATULA. Shell thin, white, depressed, leafy at the sides; plaits numerous, obtuse, here and there divided, dentiform at the margin.

SOWERBY.

Hab. New Zealand.

The ribs are so divergent, that those near the dorsal margin are at right angles with the central.

Species 2. (Mus. Brit.)

PLICATULA SIMPLEX. *Pli. testâ parvâ, gibbâ, crassâ, rectiùsculâ, subovatâ, fusco-subaureâ, nonnunquam strigatâ; plicis paucis, profundis, angulatis simplicibus.*

THE SIMPLE PLICATULA. Shell small, gibbous, thick, rather straight, somewhat ovate, of a golden brownish colour, sometimes striped; plaits few, deep angular, simple.

GOULD. ——?

Hab. China.

The few plaits of this apparently distinct species do not diverge to any extent, and consequently the shell has a rather straight oval appearance.

Species 3. (Mus. Brit.)

PLICATULA PENICILLATA. *Pli. testâ parvâ, tenui, irregulariter ovatâ, rugosâ, minutè aculeatâ, lineis parvis, brevibus, castaneis, notatâ; plicis propè marginem minutis, creberrimis; margine valvâ dextrâ irregulariter denticulatâ.*

THE PENCILLED PLICATULA. Shell small, thin, irregularly ovate, rugose, minutely aculeated, marked with small short chestnut lines; plaits very small, very close near the margin; margin of the left valve irregularly denticulated.

CARPENTER.

Hab. North America.

Species 4. (Mus. Brit.)

PLICATULA IMBRICATA. *Pli. testâ magnâ, subtrigonâ, solidâ, albidâ, vel cinnamoneâ, lineis brevibus, divaricatis, rubescentibus notatâ; plicis magnis, acutè angulatis divaricatis, rarò divisis; plerumque super angulum imbricatis.*

THE IMBRICATED PLICATULA. Shell large, subtrigonal, solid, whitish, or cinnamon, marked with short divergent reddish lines; plaits large, acutely angular, divergent, rarely divided; generally imbricated on the angle.

MENKE. Moll. Nov. Hollandiæ.

Hab. China, Philippines.—Honduras Bay, &c.

5c

6a

6b

5b

7a

7b

5a

Sowerby del et lith

Vincent Brooks Day & Son Imp

PLICATULA.

PLATE II.

Species 5. (Fig. *a*, *b*, *c*, Mus. Brit.)

PLICATULA RAMOSA. *Pli. testâ ponderosâ, propè umbones plerumque gibbosâ, albidâ; super plicas lineis maculisque purpureis vel cinnamoneis, vel castaneis notatâ; plicis obtusis medio testâ paucis, versùs marginem in ramis duabus vel tribus furcatis, impressione musculari rotundâ, elevatâ; dentibus cardinalibus fuscis; margine interno fusco lineato.*

THE BRANCHED PLICATULA. Shell ponderous, generally gibbous, whitish; plaits marked with purple or cinnamon or chestnut lines and spots; plaits few in the middle of the shell, divided into one or two branches towards the margin, muscular impression rounded, elevated; cardinal teeth brown; inner margin marked with brown lines.

LAMARCK. Anim. s. Vert., vol. vi. p. 184.

Spondylus plicatus ? Gmelin.

Plicatula gibbosa (Lamarck). Sowerby. Genera of Shells.

Hab. Lord Hood's Island.

There is no other species of *Plicatula* the plaits of which branch and divide so much as this.

Species 6. (Fig. *a*, *b*, Mus. Brit.)

PLICATULA CRISTATA. *Pli. testâ parvâ, trigonâ, albidâ, plicis nonnunquam lineatim pictis, magnis, acutè angulatis, perpaucis.*

THE CRESTED PLICATULA. Shell small, trigonal, whitish, the plaits sometimes linearly painted, large, sharply angular, very few.

LAMARCK. Anim. s. Vert, vol. vi. p. 185.

Plicatula reniformis, ——?

Hab. Jamaica, *A. Adams.* Honduras Bay, *Mr. Dyson.*

A small species of large angular plaits.

Species 7. (Fig. *a*, *b*, Mus. Brit.)

PLICATULA DEPRESSA. *Pli. testâ solidâ, super costas fusco lineatâ et maculatâ; plicis obtusis numerosis, paulò divaricatis propè marginem hinc-illic bifurcatis.*

THE DEPRESSED PLICATULA. Shell solid, lineated and spotted with brown on plaits; plaits obtuse, numerous, a little divergent, here and there, near the margin, bifurcated.

LAMARCK. Anim. s. Vert., vol. vi. p. 185.

Hab. ——?

This species is more numerously and less divergently plaited than *Plicatula ramosa*. The plaits, although occasionally divided near the margin, do not branch. The depression from which the species was named is probably an accident of growth in both the specimens figured.

October, 1873.

8a

9a

9b

8b

10a

10b

10c

10e

10d

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

PLICATULA.

PLATE III.

Species 8. (Fig. *a*, *b*, Mus. Brit.)

PLICATULA ESSINGTONENSIS. *Pli. testâ magnâ, subæquilaterali; plicis numerosis, cinnamoneo minutè lineatim notatis, divaricatis, rarò divisis, angulatis.*

THE PORT ESSINGTON PLICATULA. Shell large, nearly equilateral; plaits numerous, rather obtuse, minutely linearly marked with cinnamon, divergent, rarely divided, angular.

SOWERBY.

Hab. Port Essington, Australia.

The ribs are more numerous, less divergent, and less deep than *Plicatula Philippinarum*.

Species 9. (Fig. *a*, *b*, Mus. Brit.)

PLICATULA MURICATA. *Pli. testâ parvâ, trigonâ, cinnamoneâ, vel albâ, maculis trigonis, subradiatis pictâ; plicis creberrimis, angulatis muricatis, acutè subaculeatis.*

THE MURICATED PLICATULA. Shell small, trigonal, cinnamon coloured, or white, painted with trigonal partly radiating spots; plaits very numerous, angular, muricated, acutely subaculeated.

A. ADAMS. Proc. Zool. Soc.

Hab. ——?

A very pretty, characteristic little species.

Species 10. (Fig. *a*, *c*, *d*, Mus. Brit.)

PLICATULA AUSTRALIS. *Pli. testâ subrotundâ, depressâ, tenuiusculâ, nigro punctatâ; plicis parvis, numerosis, obtusis, divaricatis, ramosis, imbricatis, propè marginem aculeatis.*

THE AUSTRALIAN PLICATULA. Shell roundish, depressed, rather thin, black-spotted; plaits small, numerous, obtuse, divergent, branched, imbricated, aculeated near the margin.

LAMARCK. Anim. s. Vert., vol. vi. 85.

Hab. Australia, *Lamarck.* Philippines, *Cuming.*

The linguiform specimen is only an instance of irregular growth.

Species 11. (Fig. 10, *b*, Mus. Brit.)

PLICATULA ACULEATA. *Pli. testâ albâ, ovatâ, tenui, aculeis fornicatis divaricatis armatâ.*

THE ACULEATED PLICATULA. Shell white, ovate, thin, armed with vaulted prickles.

SOWERBY.

Plicatula dubia, var. Sowerby, Thes. Conch.

Hab. ——?

11ª

11ᶜ

11ᵇ

11ᵈ

12.

11ᵉ

13.

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

PLICATULA.

PLATE IV.

Species 12. (Fig. *a*, *b*, *c*, *d*, *e*, Mus. Brit.)

PLICATULA PHILIPPINARUM. *Pli. testâ magnâ, solidâ, pallidè fulvâ vel subcœruleâ, plerumque divaricatim rubro vel nigro lineatâ; plicis magnis, continuis, nonnunquam divisis, ad angulum rarissimè imbricatis.*

THE PHILIPPINE PLICATULA. Shell large, solid, pale fulvous or bluish, generally divergently lineated with red or black; plaits large, continuous, occasionally divided, very rarely imbricated.

HANLEY. Recent Shells.

Hab. Various localities among the Philippine Islands.

The figures will show that this species is subject to the usual irregularities in growth. The plaits are larger, more angular, and less branched than those of *Plicatula ramosa*.

Species 13. (Mus. Brit.)

PLICATULA DUBIA. *Pli. testâ tenui, foliaceâ, depressâ, subrotundatâ; plicis brevibus, interruptis, irregularibus, foliis extantibus, fornicatis, truncatis, paucis; colore fusco-rubescenti, castaneo maculato, propè umbones minutè punctato.*

THE DUBIOUS PLICATULA. Shell thin, foliaceous, depressed, somewhat rounded; plaits short, interrupted, irregular, with extant vaulted, truncated, few foliations; colour reddish-brown, spotted with chestnut minutely dotted near the umbones.

HANLEY. Recent Shells. Sowerby's Thesaurus. Pli. f. 19.

Hab. Isl. Samar, Philippines.

The small white shell figured in Thesaurus as *Plicatula dubia* (var.) can scarcely belong to this species. It is probably an irregular form of *Plicatula Australis*.

Species 14. (Mus. Brit.)

PLICATULA CEYLONICA. *Pli. testâ solidâ, subtrigonâ, pallidè cinnamoneâ, posticè productâ, acuminatâ, plicis magnis, angulatis, valdè divaricatis, imbricatis, lineis divaricatis, brevibus, cinnamoneis super costas notatis.*

THE CEYLON PLICATULA. Shell solid, subtrigonal, pale cinnamon, produced posteriorly, acuminated, plaits large, angular, very divergent, imbricated, marked on the ribs with short divergent cinnamon lines.

SOWERBY.

Hab. Ceylon.

The ribs are sharply angular, branched, and imbricated; characteristics which taken in connexion with the widely distant locality prevent our placing the shell as a variety of *Plicatula Philippinarum*.

PLICATULA.

	Plate.	Species.
aculeata, *Sowerby*	III.	11
Australis, *Lamarck*	III.	10
Ceylonica, *Sowerby*	IV.	14
cristata, *Lamarck*	II.	6
deltoidea, Dunker, unknown.		
depressa, *Lamarck*	II.	7
dubia, *Hanley*	IV.	13
Essingtonensis, *Sowerby*	III.	8
gibbosa, Lamarck	II.	5
imbricata, *Menke*	I.	4
lineata, Recluz, unknown.		
muricata, *A. Adams*	III.	9
Novæ-Zelandiæ, *Sowerby*	I.	1
penicillata, *Carpenter*	I.	3
Philippinarum, *Hanley*	IV.	12
plicata, Gmelin	II.	5
ramosa, *Lamarck*	II.	5
regularis, Philippi, unknown.		
reniformis, Lamarck	II.	6
simplex, *Gould*	I.	2

MONOGRAPH

OF THE GENUS

EMARGINULA.

'Full many a gem of purest ray serene
The dark unfathom'd caves of ocean bear."—*Gray.*

1a

1b

1c

1d

2a

2b

3a

4

5

3b

Sowerby del et lith.

Vincent Brooks Day & Son, Imp

EMARGINULA.

PLATE I.

Genus EMARGINULA, *Lamarck.*

Testa patelliformis, plus minusive conica, plerumque ovata, apice recurvo, radiatim costellata vel sulcata; costâ vel sulcos dorsali in fissuram vel in sinum parvum ad marginem anticum desinenti.

Shell patelliform, more or less conical, generally ovate, with apex recurved, radiately grooved or sulcated; dorsal rib or groove ending in fissure or small sinus at the anterior margin.

In place of the "key-hole" at the apex which characterizes the genus *Fissurella*, there is in shells of the genus *Emarginula* a cicatrix forming a grooved ridge, when distinct, running from the apex to the anterior margin and terminating either in an incised slit, or a more or less perceptible sinus. The *Emarginulæ* are principally inhabitants of deep water, the larger number being obtained by dredging on the shores of Australia, the Philippines and West Indies. There are three British and several Mediterranean species.

Species 1. (Fig. *a*, *b*, *c*, *d*, Mus. Brit., &c.)

EMARGINULA RUGOSA. *Ema. testâ ovatâ, obliquè conicâ, viridi, fuscoque variè radiatâ et pictâ; costis radiantibus elevatis, distantibus, asperulatis, cum minoribus interstialibus, et liris concentricis validè cancellatâ; margine intùs crenulato, fissurâ profundâ.*

THE RUGOSE EMARGINULA. Shell ovate, obliquely conical, rayed and painted variously with green and brown, strongly cancellated with elevated, distant, roughened, radiating ribs, with smaller interstitial ones, and concentric ridges; margin crenulated within, fissure deep.

QUOY. Voyage de l'Astrolabe.
Clypidina acuminata, A. Adams.
Clypidina candida, A. Adams.
Clypidina annulata, A. Adams.
Clypidina fungina, Gould.
Clypidina conoidea, Gould.
Clypidina aspera, Gould.
Emarginula conoidea, Reeve.
Hab. Australia.

The long array of synonyms here cited results from the great variation of form and condition to which this species seem to be liable, and to the extent of wearing to which the sculpture has been exposed in different individuals.

Species 2. (Fig. *a*, *b*, Mus. Brit. and Sowerby.)

EMARGINULA TENUICOSTATA. *Ema. testâ ovatâ, fasciis viridis vel radiis fuscis pictâ, costis numerosis, noduliferis, et striis concentricis minutis crebrè cancellatâ; apice versùs marginem posticum incurvo; fissurâ profundâ, incisâ.*

THE THIN-RIBBED EMARGINULA. Shell ovate, painted with green bands or brown rays, closely cancellated with numerous beaded ribs and minute concentric ridges; apex curved inwards towards the posterior margin; fissure deep, incised.

SOWERBY. Thesaurus Conchyliorum, Fissurellida, Emarginula, Sp. 32, fig. 17, 18.
Hab. ——?

Species 3. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA DEPRESSA. *Ema. testâ latâ, depressâ, quinquelaterali, subviridi, costis crassis, nodosis, quarum quinque majoribus radiatâ; costâ dorsali brevi, elevatâ, fissurâ extùs inconspicuâ; apice postico.*

THE DEPRESSED EMARGINULA. Shell broad, depressed, five-sided, greenish, rayed with thick, knobbed ribs, of which five are larger; dorsal rib short,

raised, fissure inconspicuous outside; apex posterior.

BLAINVILLE. Manual of Malacology.

Hab. Honduras Bay.

Species 4. (Mus. Brit.)

EMARGINULA HUZARDI. *Ema. testâ ovali, albâ, valdè depressâ, posticè latiusculâ, costis subrotundis et liris numerosis regularibus concentricis concinnè cancellatâ; apice postico, incurvo; fissurâ incisâ.*

HUZARD'S EMARGINULA. Shell oval, white, much depressed, posteriorly rather broad, neatly cancellated with rather rounded ribs and numerous regular concentric ridges; apex posterior, curved inwards; fissure incised.

PAYRAUDEAU. Proc. Zool. Soc., 1851.

Emarginula Cuvieri, Savigny.

Hab. Mediterranean.

The sculpture of this species is fine, regular, and beautiful.

Species 5. (Mus. Brit.)

EMARGINULA FISSURATA. *Ema. testâ latâ, depressâ, crassâ, purpureâ, concolori vel rubro variegatâ; costis numerosis, granosis radiatâ, anticè paulò angustatâ; apice paulò postico; costâ dorsali elevatâ, fissurâ brevissimâ, incisâ.*

THE FISSURED EMARGINULA. Shell broad, depressed, thick, purple of one colour, or varied with red; rayed with numerous granular ribs, a little narrowed anteriorly; apex a little posterior; dorsal rib raised, fissure very short, incised.

CHEMNITZ. Conch. Cab. vol. x.

Emarginula variegata, A. Adams.

Hab. Philippines.

A very solid, broad species, not in danger of being confounded with anything else.

6a

7

6b

8

a b

9

a b

10

11a

12

13

11b

Sowerby del et lith.

Vincent Brooks Day & Son Imp

EMARGINULA.

PLATE II.

Species 6. (Mus. Sowerby.)

EMARGINULA POLYGONALIS. *Ema. testâ ovato-octogonâ, albidâ, depresso-conicâ, apice subcentrali, posticè paulò inclinato, lateribus subcompressis; radiis octo principalibus subnodosis, interstitialibus minoribus, alternatis; fissurâ brevissimâ, intùs in canalem, extùs in costam continuâ.*

THE MANY-SIDED EMARGINULA. Shell ovate-octagonal, whitish, depressed-conical, apex subcentral, a little inclined posteriorly, sides rather compressed; eight principal rays prominent, subnodose, the interstitial ones smaller, alternating; fissure very short, continued in a canal inside, and a rib outside.

A. ADAMS. Proc. Zool. Soc., 1861. Sowerby's Thesaurus, f. 78, 90.

Emarginula denticulata, A. Adams. The young state of this species.

Hab. Catanuan, Philippines.

Species 7. (Mus. Brit.)

EMARGINULA PULCHRA. *Ema. testâ subdepressâ, subovatâ, viridi radiatâ, anticè angustiùsculâ; costis dentatis, posticis majoribus; dorso anticè convexo, posticè depresso, apice paulò posticè inclinato; testâ intùs viridi variegatâ; fissurâ brevi, incisâ.*

THE BEAUTIFUL EMARGINULA. Shell subdepressed, subovate, rayed with green, narrower anteriorly; ribs dentated, the posterior ones the larger; back anteriorly convex, posteriorly depressed, apex a little posteriorly inclined; shell within varied with green; fissure short, incised.

A. ADAMS. Proc. Zool. Soc., 1851. Sowerby's Thesaurus, f. 50–51.

Emarginula picta, Dunker.

Hab. Isl. Catanuan, Philippines.

This species was collected by Mr. Cuming on rocks exposed at low water.

Species 8. (Mus. Sowerby.)

EMARGINULA CANCELLATA. *Ema. testâ ovatâ, albâ, recurvâ; costis radiantibus, alternatis, alternatim minoribus, et rugis tenuibus numerosissimis concentricis regulariter cancellatâ; dorso anticè convexo, posticè concavo; fissurâ incisâ, longiùsculâ; apice postico, recurvo; costâ fissurali foveolatâ.*

THE CANCELLATED EMARGINULA. Shell ovate, white, recurved; regularly cancellated with radiating ribs alternately smaller, and with very numerous, fine concentric wrinkles; back anteriorly convex, posteriorly concave; fissure incised, rather long; apex posterior, recurved; fissural rib pitted.

PHILIPPI. Enum. Sicil.

Hab. Panorma.

Species 9. (Mus. Jeffreys.)

EMARGINULA ROSEA. *Ema. testâ parvâ, curvâ, albo-rosescenti, radiatim costis crassiùsculis paucis, concentricè foveis interstitialibus cancellatâ; apice validè incurvo, post marginem posticum producto, dorso arcuato, elevato, fissurâ incisâ, breviùsculâ.*

THE ROSY EMARGINULA. Shell small, curved, rosy-white, cancellated radiately with rather thick, few ribs, concentrically with interstitial pits; apex strongly incurved, produced beyond the posterior margin, back arched, elevated, fissure incised, rather short.

BELL. Zool. Journ., vol. i.

Emarginula conica, Blainville.

Emarginula curvirostris, Deshayes.

Emarginula pileolus, Michaud.

Hab. Great Britain. Mediterranean.

Species 10. (Mus. Sowerby.)

EMARGINULA FULIGINEA. *Ema. testâ parvâ, ovatâ, depressâ, minutè costatâ, fuligineâ, radiatim nigro*

variegatâ, intùs subviridis; apice obtusò, subcentrali viridescenti; fissurâ brevissimâ.

THE SMOKY EMARGINULA. Shell small, ovate, depressed, minutely ribbed, sooty, radiately variegated with black, greenish within; apex obtuse, subcentral, greenish; fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851. Sowerby's Thesaurus, f. 7, 8.

Hab. ——?

Species 11. (Mus. Brit.)

EMARGINULA SULCIFERA. *Ema. testâ ovali, depresso-conicâ, intùs viridescenti, extùs fusco-purpureâ; apice obtuso, postico; costellis striisque radiantibus inæqualibus; margine interno crenulato, nigro punctato; canali fissurali laterali, intùs profundo; fissurâ parvâ.*

THE GROOVED EMARGINULA. Shell oval, depressed-conical, greenish within, purplish-brown without; apex obtuse, posterior; radiating ribs and striæ unequal; inner margin crenulated, spotted with black; fissural canal lateral, deep within; fissure small.

A. ADAMS. Proc. Zool. Soc., 1851. Sowerby's Thesaurus, f. 84, 85.

Hab. ——? Mus. Cuming.

This is the only species in which the fissure and the canal leading to it are placed, as in *Siphonaria*, a little on one side.

Species 12. (Mus. Brit.)

EMARGINULA CRATITA. *Ema. testâ ovatâ, conicâ, albidâ; costis radiantibus acutè nodosis, distantibus, interstitiis cancellatis, apice obtusiusculo, paulò post-mediano; costâ fissurali elevatâ, fissurâ brevissimâ.*

THE WATTLED EMARGINULA. Shell ovate, conical, whitish; radiating ribs sharply nodose, distant, interstices cancellated, apex rather obtuse, post-median; fissural rib elevated, fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. ——?

The type specimen in the Cumingian Collection was unaccompanied by any information as to its locality.

Species 13. (Mus. Sowerby.)

EMARGINULA CONCINNA. *Ema. testâ elongatâ, depressâ, albâ; costis radiantibus numerosis, subnodosis; interstitiis cancellatis; apice postico, submarginali, arcuato, dorso arcuato, costâ fissurali foveolatâ; fissurâ elongatâ.*

THE NEAT EMARGINULA. Shell elongated, depressed, white; radiating ribs numerous, slightly nodose; interstices cancellated; apex posterior, nearly marginal, arched, back arched, fissural rib ribbed; fissure elongated.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Mediterranean?

Distinguished from *Marginella elongata*, of Philippi, by the dorsal curve and the nearly marginal position of the apex.

14 *a*

b *a*

15

14 *b*

b *a*

16

17

18

19 *a*

20

21

19 *b*

Sowerby del et lith

Vincent Brooks Day & Son Imp

EMARGINULA.

PLATE III.

Species 14. (Mus. Brit.)

EMARGINULA VIMINEA. *Ema. testâ subconicâ, pallidissimè fulvâ, radiatim fasciatâ; costellis radiantibus nodulosis, inæqualibus, numerosis, lirisque concentricis, crassis cancellatâ; apice paulò incurvo, post-mediano; costâ fissurali elevatâ, crenulatâ, fissurâ brevissimâ.*

THE WICKER-WORK EMARGINULA. Shell rather conical, very pale fulvous, radiately banded; cancellated with nodose, unequal, numerous, radiating ribs and thick concentric ridges; apex a little incurved, post-medial; fissural rib elevated, crenulated; fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851. Sowerby's Thesaurus, f. 12.

Hab. Philippines.

Species 15. (Mus. Sowerby.)

EMARGINULA GALERICULATA. *Ema. testâ parvâ, ovatâ, subdepressâ, curvâ, tenuitè cancellatâ; apice post-marginali, dorso convexo; cicatrice fissurali depresso, foveolato; fissurâ elongatâ.*

THE CAP-SHAPED EMARGINULA. Shell small, ovate, rather depressed, curved, finely cancellated; apex post-marginal, back convex; fissural cicatrix depressed, pitted; fissure elongated.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Calapan, Isl. Mindoro, Philippines.

Species 16. (Mus. Brit.)

EMARGINULA CAPULIFORMIS. *Ema. testâ parvâ, uncinnatâ, elevatâ, albidâ, costis validis paucis subæqualibus et rugis transversis interstitialibus cancellatâ; apice post-marginali, validè incurvo, dorso convexo, perelevato; fissurâ brevi.*

THE HOODED EMARGINULA. Shell small, hooked, elevated, whitish, cancellated with few strong, nearly equal ribs and transverse interstitial ridges; apex post-marginal, strongly incurved, back convex, much elevated; fissure short.

PHILIPPI. Enum. Moll. Siciliæ, I. T. vii. f. 12.

Hab. Mediterranean.

The circumference of this small shell is so narrow, and the curved elevation of the back so high, that it is almost a cornucopia in form.

Species 17. (Mus. Sowerby.)

EMARGINULA ELONGATA. *Ema. oblongâ, subdepressâ, conicâ, albâ; costis radiantibus validis, subdistantibus quarum plurimis posticis prominentioribus, et rugis concentricis interstitialibus cancellatâ; apice post-mediano, acuto, posticè inclinato; cicatrice fissurali depressâ, foveolatâ; fissurâ incisâ, longitudine mediocri.*

THE ELONGATED EMARGINULA. Shell oblong, subdepressed, conical, white; cancellated with strong, rather distant radiating ribs, of which several posterior ones are more prominent, and concentric interstitial ridges; apex post-medial, sharp, inclined posteriorly; fissural cicatrix depressed, pitted; fissure incised, of medium length.

COSTA. Phil. Enum. Moll. Sicil.

Hab. Mediterranean.

Species 18. (Mus. Brit.)

EMARGINULA INCISURA. *Ema. testâ oblongâ, depressâ, pallidè fulvâ, posticè magis expansâ, anticè magis elevatâ, costis crebris, subrotundis, radiantibus, et striis concentricis sculptâ; apice ante-mediano, recurvo, dorso convexo; fissurâ incisâ, elongatâ.*

THE INCISED EMARGINULA. Shell oblong, depressed, pale fulvous, more expanded at the back, more elevated in front, sculptured with rather rounded, close ribs and concentric striæ; apex ante-

medial, recurved, back convex; fissure incised, elongated.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. ——?

The locality of this remarkable shell in the Cumingian collection is not known.

Species 19. (Mus. Brit.)

EMARGINULA AUSTRALIS. *Ema. testâ conicâ, elevatâ, rotundatim ovatâ, pallidè fulvâ, costis radiantibus scabris inæqualibus, et lineis concentricis decussatâ, costis tribus anticis magnis; apice paulò post-mediano, recurvo, acuminato, elevato; fissurâ brevissimâ.*

THE AUSTRALIAN EMARGINULA. Shell conical, elevated, roundly ovate, pale fulvous, decussated with unequal radiating and concentric lines, three anterior ribs large; apex a little post-medial, recurved, acuminated, elevated; figure very short.

QUOY ET GAIMARD. Voy. Astr.

Hab. Australia.

Species 20. (Mus Brit.)

EMARGINULA PLANULATA. *Ema. testâ depressâ, pallidè fulvâ, posticè planulatâ, productâ, anticè brevi, convexiùsculâ; costis numerosis subæqualibus, depressis radiatâ; apice recurvo, multò ante-mediano; fissurâ incisâ, elongatâ.*

THE FLATTENED EMARGINULA. Shell depressed, pale fulvous, posteriorly flattened, produced, anteriorly short, rather convex; rayed with numerous nearly equal depressed ribs; apex recurved, very ante-medial; fissure incised, elongated.

ARTHUR ADAMS. Proc. Zool. Soc., 1851.

Hab. Philippines.

This species differs from *Emarginula incisura* principally in the sculpture.

Species 21. (Mus. Brit.)

EMARGINULA CLYPEUS. *Ema. testâ pallidè fulvâ, depressâ, costellis radiantibus numerosis subæqualibus et striis concentricis decussatâ; lateribus rectiùsculis; costis tribus posticis majoribus; apice centrali, paulò recurvo, fissurâ incisâ, elongatâ.*

THE SHIELD EMARGINULA. Shell pale fulvous, depressed, decussated with numerous radiating nearly equal ribs and concentric striæ; sides rather straight, three posterior ribs larger; apex central, a little recurved, fissure incised, elongated.

ARTHUR ADAMS. Proc. Zool. Soc., 1873.

Hab. Philippines.

22a

23

24

22b

25

26

27

28a

28b

a

b

29

Sowerby del et lith

Vincent Brooks Day & Son, Imp

EMARGINULA.

PLATE IV.

Species 22. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA VARIEGATA. *Ema. testâ, subconicâ, depressâ, latâ, punctis radiisque variegatâ; apice obtuso, paulò post-mediani; costis inæqualibus, numerosis, rugosis, hinc-illic nigro quasi-articulatis; fissurâ brevi.*

THE VARIEGATED EMARGINULA. Shell rather conical, depressed, broad, varied with spots and rays; apex obtuse a little behind the middle; ribs unequal, numerous, rugose, here and there seemingly articulated with black; fissure short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Australia.

Nearly of the form of *Emarginula fuliginea*, but with rougher and stronger ribs.

Species 23. (Mus. Brit.)

EMARGINULA DILECTA. *Ema. testâ depressâ, posticè latiùsculâ, albidâ; apice subretrorso; costis subæqualibus, subdistantibus; interstitiis concentricè liratis; fissurâ subelongatâ.*

THE CHOICE EMARGINULA. Shell depressed, rather broad posteriorly, whitish; apex leaning a little backwards; ribs nearly equal, rather distant; interstices concentrically ridged; fissure rather lengthened.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. George's Sound, South Australia.

The regularly concentric ridges shown in the interstices give this little shell a beautifully cancellated appearance.

Species 24. (Mus. Brit.)

EMARGINULA OBOVATA. *Ema. testâ depressâ, albidâ, posticè subexpansâ, anticè angustiùsculâ; apice paulò post-mediani, recurvo; costis imbricatis et liris concentricis parvis cancellatâ; costâ fissurali foveolatâ, fissurâ subelongatâ, incisâ.*

THE OBOVATE EMARGINULA. Shell depressed, whitish, a little expanded posteriorly, rather narrow anteriorly; apex a little behind the middle, recurved; cancellated with imbricated ribs, and small concentric ridges; fissural rib pitted, fissure rather long, incised.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Catbalonga, Isl. Samar, H. Cuming.

Species 25. (Mus. Brit.)

EMARGINULA PUNCTICULATA. *Ema. testâ ellipticâ, posticè paulò latiori, albidâ, costis radiantibus, rugosis, subdistantibus et liris tenuibus concentricis reticulatâ; apice postico acuto recurvo; cicatrice fissurali planulatâ; fissurâ latâ, breviùsculâ.*

THE PUNCTICULATED FISSURELLA. Shell elliptic, a little broader posteriorly, whitish, reticulated with rough, rather distant radiating ribs and thin concentric ridges; apex posterior, sharp, recurved; fissural cicatrix flattened; fissure broad, rather short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. —— ?

Quite distinct from *Emarginula crassa* in sculpture although similar in form.

Species 26. (Mus. Brit.)

EMARGINULA CRASSA. *Ema. testâ magnâ, elevatâ, conicâ, solidâ, albâ, posticè latiori, costellis minutè nodosis, inæqualibus, fasciculatis, radiatâ; apice retrorso, post-mediani, vix incurvo.*

THE THICK EMARGINULA. Shell large, elevated, conical, solid, white, posteriorly broader, rayed with minutely nodose unequal fasciculated riblets;

apex bent backwards, post-medial, scarcely bent inwards.

J. SOWERBY. Min. Con., Pl. 33.

Emarginula solidula, Costa.

Hab. Great Britain, Mediterranean.

Species 27. (Fig. *b*, *c*, Pl. VIII., Mus. Brit.)

EMARGINULA EMENDATA. *Ema. testâ ovali, conicâ, latâ, fuscâ; apice elevato, incurvo, valdè post-mediani; costis æqualibus, rotundis, crebris; fissurâ elongatâ, angustâ, propè marginem contractâ, ad marginem clausâ.*

THE MENDED EMARGINULA. Shell oval, conical, broad, brown; apex elevated, incurved, much behind the middle; ribs equal, rounded, close; fissure elongated narrow, contracted near the margin, closed at the margin.

SOWERBY. Thesaurus Conchyliorum. Emarginula, sp. 31, f. 11.

Hab. —— ?

By the curious way in which the edges of the fissure are drawn together towards the margin till closed, this shell becomes a sort of link between the genera *Rimula* and *Emarginula*.

Species 28. (Mus. Brit.)

EMARGINULA CUCULLATA. *Ema. testâ ovatâ, elevatâ, albidâ, anticè contractâ; costis validis posticè magis distantibus, radiantibus, et liris concentricis reticulatâ; apice elevato retrorsim, arcuato, multò post-mediani; fissurâ latâ, elongatâ, incisâ.*

THE HOODED EMARGINULA. Shell ovate, elevated, whitish, anteriorly contracted, reticulated with strong radiating ribs more distant posteriorly and concentric ridges; apex elevated, arched backward, much behind the middle; fissure broad, elongated, incised.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Singapore.

Found on larger shells in five fathoms of water.

Species 29. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA ADAMSIANA. *Ema. testâ pallidè roseâ, ellipticâ, costis magnis rugosis, et parvis intermediis radiantibus, et liris concentricis inæqualibus scabrosis cancellatâ; dorso arcuato; apice post marginem posticum declinato; fissurâ longiusculâ, incisâ.*

ADAMS'S EMARGINULA. Shell pale rose, elliptic; cancellated with large rugose radiating ribs, and unequal scabrous concentric ridges; back arched; apex bent over beyond the posterior margin; fissure rather long, incised.

SOWERBY. Thesaurus Conchyliorum. Emarginula, sp. 26, f. 27, 28.

Hab. Japan.

This species slightly resembles *Emarginula rosea*, but the ribs are much fewer and coarser.

30

31

32

33a

34

35

33b

36a

36b

37

Sowerby del et lith

Vincent Brooks Day & Son, Imp.

EMARGINULA.

PLATE V.

Species 30. (Mus. Brit.)

EMARGINULA SCABRIUSCULA. *Ema. testâ ovàto-subquadratâ, subdepressâ, pallidè fulvâ, fusco-rubescenti maculatâ, anticè angustiùsculâ, posticè propè marginem tumidâ, dorso arcuato, apice recurvo, post-mediani; costis radiantibus crassis, rugosis, distantibus, interstitiis cancellatis; fissurâ elongatâ, incisâ.*

THE SCABROUS EMARGINULA. Shell ovately subquadrate, subdepressed, pale fulvous, spotted with reddish-brown, rather narrow anteriorly, tumid posteriorly near the margin, back arched, apex recurved, post-medial; radiating ribs thick, rough, distant, with the interstices cancellated; fissure elongated, incised.

A. ADAMS. Proc. Zool. Soc., 1861.

Hab. Japan.

Species 31. (Fig. *a*, *b*, Mus. —— ?)

EMARGINULA PUNCTATA. *Ema. testâ parvâ, ovato-subrotundâ, depressâ; costis radiantibus parvis, distantibus, nigro punctatis; interstitiis striatis; apice obtuso, post-mediani; fissurâ incisâ.*

THE DOTTED EMARGINULA. Shell small, rounded ovate, depressed; radiating ribs small, distant, spotted with black; interstices striated; apex obtuse, post-medial; fissure incised.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. San Nicholas, Isl. Zebu, Philippines.

A little neatly spotted species so shortly oval as to be nearly round.

Species 32. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA MACULATA. *Ema. testâ parvâ, ovatâ, depressâ, minutè radiatim costatâ, interstitiis concentricè liratis; dorso arcuato, griseo maculato; apice recurvo, marginem declinato.*

THE SPOTTED EMARGINULA. Shell small, ovate, depressed, minutely radiately ribbed, interstices concentrically ridged; back arched, spotted with grey; apex recurved, bent over behind the margin.

A. ADAMS. Sowerby's Thesaurus. Emarginula, sp. 27, f. 31, 32.

Hab. Gotto, Japan.

Species 33. (Fig. *a*, *b*, Mus. Sowerby.)

EMARGINULA RETICULATA. *Ema. testâ albâ, conicâ, elevatâ, costis validis radiantibus, et liris concentricis reticulatâ; interstitiis profundè foveolatis; apice retrorso, acuto; fissurâ elongatâ, incisâ.*

THE RETICULATED EMARGINULA. Shell white, conical raised, reticulated with strong radiating ribs and concentric ridges; interstices deeply pitted; apex leaning backwards, sharp; fissure elongated incised.

J. SOWERBY. Mineral Conchology.

Patella fissura (pars.), Linnæus.

Emarginula lævis, Reeling.

Emarginula reticosa, A. Adams.

Hab. Isl. Luzon, Philippines.

Species 34. (Mus. Cuming.)

EMARGINULA VANIKOROENSIS. *Ema. testâ latâ, conicâ, arcuatâ, tenui, albidâ, anticè angustiùsculâ; costis latis, tumidis distantibus; margine crenulato; apice post-mediani, fissurâ brevi.*

THE VANIKORO EMARGINULA. Shell broad, conical, arched, thin, white, rather narrow anteriorly; ribs broad, tumid, distinct; margin crenulated; apex post-medial, fissure short.

QUOY. Voyage de l'Astrolabe.

Hab. Vanikoro.

Species 35. (Mus. Brit.)

EMARGINULA CLATHRATA. *Ema. testâ depressâ, albidâ, latâ, costis radiantibus rotundis, subdistantibus, et liris concentricis cancellatâ, interstitiis foveolatis; apice arcuatim retrorso; fissurâ elongatâ, angustâ, incisâ.*

THE CROSS-BARRED EMARGINULA. Shell depressed, white, broad, cancellated with rather distant rounded radiating ribs, and concentric ridges with pitted interstices; apex arched backwards; fissure elongated, narrow, incised.

PEASE ——? Sowerby's Thesaurus. Emarginula, species 7, f. 54.

Hab. Sandwich Islands.

Species 36. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA BELLULA. *Ema. testâ ovatâ, albâ, arcuatâ, ventricosâ; apice post-mediani, declinato; costis distantibus, prominentibus, et liris intermediis subechinatis; carinâ fissurali foveolatâ; fissurâ elongatâ.*

THE BEAUTIFUL EMARGINULA. Shell ovate, white, arched, ventricose; apex post-medial, bent down; ribs distant, prominent, and small intermediate ones nearly spinose; fissural keel pitted; fissure elongated.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Isl. Luzon, Philippines.

This pretty shell is distinguished from *Emarginula cancellata* by its aculeated sculpture.

Species 37. (Mus. Brit.)

EMARGINULA SCUTULATA. *Ema. testâ oblongâ, polygonâ, subdepressâ, viridi concentricè fasciatâ; costis rugosis inæqualibus, fasciculatis; apice obtuso, post-mediani; cicatrice fissurali depressâ, minutè foveolatâ, fissurâ brevi, incisâ.*

THE SHIELD-SHAPED EMARGINULA. Shell oblong, polygonal, subdepressed, concentrically banded with green; ribs rough, unequal, collected in bunches; apex obtuse, post-medial; fissural cicatrix depressed, minutely pitted, fissure short, incised.

DESHAYES ——? Sowerby's Thesaurus. Emarginula, sp. 45, fig. 53.

Hab. ——?

38

39

40

41

42 a

42 b

43 a

44 a

44 b

43 b

Sowerby, del et lith.

Vincent Brooks Day & Son Imp.

EMARGINULA.

PLATE VI.

Species 38. (Mus. Brit.)

EMARGINULA CRASSICOSTATA. *Ema. testâ parvâ, subovatâ, anticè latiùsculâ, rugosâ; costis radiantibus numerosis, æqualibus, nodulosis, interstitiis concentricè regulariter liratis, foveolatis; apice postico; dorso arcuato; cicatrice fissurali elevato; fissurâ elongatâ.*

THE THICK-RIBBED EMARGINULA. Shell small, subovate, anteriorly rather broad, rugose; radiating ribs numerous, equal, nodulose, interstices concentrically ridged, pitted; apex posterior; back arched; fissural cicatrix elevated, fissure elongated.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Pl. XI. fig. 42.

Hab. —— ?

Species 39. (Mus. Brit.)

EMARGINULA CRASSILABRUM. *Ema. testâ compressâ, posticè expansâ, fulvâ, partim subcinereâ, quinque-angulatâ, costellis inæqualibus, validis, ad angulos prominentioribus, posticis duplicatis radiatâ, margine dentato; apice obtuso paulò antico; costâ fissurali prominenti, fissurâ brevi, quadratâ.*

THE THICK-RIBBED EMARGINULA. Shell compressed, posteriorly expanded, fulvous, partly subcinereous, five-angled, rayed with unequal, strong ribs, more prominent at the angles, the posterior ones doubled, margin toothed; apex obtuse, a little anterior; fissural rib prominent, fissure short, square.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. —— ?

A very *limpet-like* shell, with no tendency in the beak to curve.

Species 40. (Mus. Brit.)

EMARGINULA NODULOSA. *Ema. testâ fulvo-viridi, elevatâ, arcuatâ, costis septem crassis, lobatis, latis, prominentibus radiatâ, inter costas foveolatâ; costâ fissurali angustâ, prominenti; fissurâ internâ; apice recurvo, dorso arcuato.*

THE NODULOUS EMARGINULA. Shell fulvous-green, elevated, arched, rayed with seven thick lobed, broad, prominent ribs, pitted between the ribs; fissural rib narrow, prominent; fissure internal; apex recurved, back arched.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Sibonga, Isl. Zebu, Philippines.

The ribs are thickly clubbed and the fissure is only visible on the inner edge.

Species 41. (Mus. Brit.)

EMARGINULA CUMINGII. *Ema. testâ compressâ, pallidè fulvâ, medio et versùs apicem viridi pictâ; costis rugatis, rotundis, inæqualiter fasciculatis radiatâ; margine expanso, lobato, octangulato; apice obtuso, ante-mediani; fissurâ brevi, incisâ.*

CUMING'S EMARGINULA. Shell compressed, pale fulvous, painted with green in the middle and towards the apex; rayed with wrinkled, rounded, unequally grouped ribs; margin expanded, lobed, octangular; apex obtuse, ante-median; fissure short, incised.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Pl. XII. 76; Emarginula, species 76.

Hab. Australia.

Species 42. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA NOTATA. *Ema. testâ ovato-subrotundâ, depressâ, latâ, subcæruleâ, costis numerosis, depressis, nigris radiatâ, intùs ad marginem lineis nigris ornatè dispositis notatâ; apice obtuso, ante-mediani; fissurâ inconspicuâ.*

THE MARKED EMARGINULA. Shell ovate-subrotund, depressed, broad, bluish, rayed with numerous depressed, black ribs, marked inside at the margin with black lines ornately disposed; apex obtuse, ante-median; fissure inconspicuous.

LINNÆUS (Patella). Systema Naturæ.

Hab. —— ?

The fissure in this species is only represented by a slight groove in the interior, scarcely perceptible at the margin. The black lines are placed in ornamentally festooned clusters on the margin.

Species 43. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA PANHIENSIS. *Ema. testâ elevatâ, arcuatâ, viridi, cancellatâ, costis nodulosis, validis, posticis et lateralibus subæqualibus, tribus anticis magnis, prominentibus, divisis radiatâ; margine antico elevato; dorso arcuato, apice postico, acutè recurvo.*

THE PANHI EMARGINULA. Shell elevated, arched, green, cancellated, rayed with nodulose, strong ribs, the hinder and lateral ones nearly equal, three in front large, prominent, divided; anterior margin elevated; back arched, apex posterior, acutely recurved.

QUOY. Voyage de l'Astrolabe.

Emarginula clathrata, Adams and Reeve.

Hab. Panhi; *Quoy.* Philippines; *Cuming.*

Species 44. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA SOLIDULA. *Ema. testâ parvâ, albâ, solidâ, ovatâ, paulò elevatâ; costis rotundis, subnodosis radiatâ; interstiis angustis; apice post-mediani; fissurâ elongatâ, incisâ.*

THE SOLID EMARGINULA. Shell small, white, solid, ovate, little elevated; rayed with rounded subnodose ribs; interstices narrow; apex post-median; fissure elongated, incised.

PHILIPPI. Enum. Sicil.

Hab. Mediterranean. Japan

45a

46

47

45b

48

49

50

51a

51b

52

EMARGINULA.

PLATE VII.

Species 45. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA CANDIDA. *Ema. testâ albâ, arcuatâ, ovatâ, costis validis, nodosis, subæqualibus circà viginti, radiatâ, interstitiis concentricè liratis et foveolatis; apice valdè retrorso; dorso arcuato; fissurâ brevi, subquadratâ, incisâ.*

THE WHITE EMARGINULA. Shell white, arched, ovate, rayed with about twenty strong, nodose, nearly equal ribs, with concentrically ridged and pitted interstices; apex much recurved; back arched; fissure short, rather square, incised.

A. ADAMS. Sowerby's Thesaurus Conchyliorum. Fissurellidæ, Emarginula, sp. 16, figs. 45, 46.

Hab. Port Adelaide, Australia.

This species is of exquisite sculpture.

Species 46. (Mus. Brit.)

EMARGINULA PUMILA. *Ema. testâ parvâ, pallidè fuscâ, depressâ, costis inæqualibus, rotundis, contricè rugatis radiatâ; costâ fissurali elevatâ; fissurâ incisâ; breviùsculâ; apice obtuso, subcentrali.*

THE DWARFISH EMARGINULA. Shell small, pale brown, depressed, rayed with unequal rounded concentrically wrinkled ribs; fissural rib raised; fissure incised, rather short; apex obtuse, nearly central.

ARTHUR ADAMS. Proc. Zool. Soc., 1851.

Hab. Honduras.

A little *patella-like* species with coarse sculpture.

Species 47. (Mus. Brit.)

EMARGINULA STRIATULA. *Ema. testâ parvâ, albâ, oblongâ, depressâ, costis inæqualibus, subrotundis, tribus posticis et quatuor anticis majoribus, lateralibus minoribus, paucis intermedis radiatâ, interstitiis tenuiter concentricè striatis; apicè post-mediani obtuso, fissurâ incisâ, oblongâ.*

THE LITTLE STRIATED EMARGINULA. Shell small, white, oblong, depressed, rayed with unequal, rather rounded ribs, the three posterior and four anterior larger, and the lateral smaller, a few intermediate, with finely, concentrically striated interstices; apex post-median, fissure incised, oblong.

QUOY. Voyage de l'Astrolabe.

Hab. Australia.

Species 48. (Mus. Brit.)

EMARGINULA LÆVICOSTATA. *Ema. testâ parvâ, albâ, griseo radiis latis pictâ, depressâ, posticè rotundâ, anticè angustiori, angulatâ, subplanulatâ, costis sublævigatis radiatâ, interstiis concinnè foveolatis et costellis interstitialibus raris; apice paulò post-mediani; fissurâ incisâ, oblongâ.*

THE SMOOTH-RIBBED EMARGINULA. Shell small, white, painted with grey in broad rays; depressed, rounded posteriorly, narrower anteriorly, angular, rather flat, rayed with rather smooth ribs, with interstices neatly pitted and a few interstitial riblets; apex a little post-median; fissure incised, oblong.

A. ADAMS. Proc. Zool. Soc., 1851; Sowerby's Thes. Conch. Fissurellidæ, Plate V., fig. 57.

Hab. ——?

A pretty little species, with the ribs rather smooth.

Species 49. (Mus. Brit.)

EMARGINULA ACULEATA. *Ema. testâ parvâ, elongatâ, fulvâ, fusco radiatâ, posticè rotundâ, anticè angustiori, costis prominentibus, subnodosis posticè validioribus radiatâ; interstitiis concentricè liratis; apice recurvo, aculeato, post-mediano.*

THE ACULEATED EMARGINULA. Shell small, elongated, fulvous, rayed with brown, rounded posteriorly, narrower anteriorly, rayed with prominent, rather nodose ribs, the posterior stronger, interstices con-

centrically ridged; apex recurved, aculeated, postmedian.

A ADAMS. Proc. Zool. Soc., 1851.

Hab. ——?

The narrow brown rays give a sprightliness of appearance to this pretty little species.

Species 50. (Mus. Brit.)

EMARGINULA LATA. *Ema. testâ depressâ, pallidè fulvâ, subquadratâ, costis rugosis, validis, inæqualibus, lateraliter subcompressis radiatâ, interstitiis angustis; costâ fissurali elevatâ; fissurâ parvâ, quadratâ; apice centrali, obtuso.*

THE BROAD EMARGINULA. Shell depressed, pale fulvous, subquadrate, rayed with rough, strong, unequal, laterally rather compressed ribs, with narrow interstices; fissural rib raised; fissure small, square; apex central, obtuse.

QUOY. Voyage de l'Astrolabe.

Subemarginula catillus, A. Adams.

Hab. Australia.

Species 51. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA ALVEOLATA. *Ema. testâ pallidè fulvâ, ovatâ, subconicâ, elevatâ, costis octodecim circâ, crassis, rugatis radiatâ; interstitiis concentricè liratis; apice postico, retrorso, dorso anticè arcuato, posticè infrà apicem ferè perpendiculariter declivi; fissurâ brevi.*

THE CHANNELLED EMARGINULA. Shell pale fulvous, ovate, rather conical, elevated, rayed with about eighteen thick, wrinkled ribs with concentrically ridged interstices; apex posterior, turned back; back arched anteriorly, almost perpendicularly sloped posteriorly below the apex; fissure short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Honduras.

Species 52. (Mus. Brit.)

EMARGINULA LONGIFISSÆ. *Ema. testâ oblongâ, depressâ, subquadratâ, costis anticis distantibus, majoribus lateralibus compressis radiatâ; apice longè postmediani; fissurâ elongatâ, incisâ.*

THE LONG-SLIT EMARGINULA. Shell oblong, depressed, subquadrate, rayed with ribs, the anterior ones distant, lateral ones compressed; apex far behind the middle; fissure lengthened, incised.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Emarginula, species 19, Pl. XI. f. 62.

Hab. ——?

27 c

53

54

55

56

57

58

59 a

59 b

60

Sowerby del. et lith.

Vincent Brooks Day & Son, Imp.

EMARGINULA.

PLATE VIII.

Fig. 27, *b*, *c*.

EMARGINULA EMENDATA, *Sowerby*. The first figure, given in a previous place, is that of a dark variety, the lighter variety now figured being drawn from specimens in the British Museum under the name of *Emarginula Paivana*. Crosse.

Species 53. (Mus. Brit.)

EMARGINULA SCULPHILIS. *Ema. testâ depressâ, anticè subquadratâ, posticè subacuminatâ; costis rugatis decem concinnè sculptis quarum tribus posticis magnis, tribus anticis majoribus, radiatâ, pallidè fulvâ, maculis fuscis inter costas pictâ; apice obtuso, paulò post-mediani; costâ fissurali prominenti; fissurâ brevissimâ.*

THE SCULPTURED EMARGINULA. Shell depressed, anteriorly rather square, posteriorly slightly acuminated; rayed with ten wrinkled, neatly sculptured ribs, of which the three posterior are large and the three anterior very large, pale fulvous, painted with brown spots between the ribs; apex obtuse, a little post-median; fissural rib prominent; fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Calapan, Mindoro, Philippines.

Peculiarly distinguished by rows of brown spots between the well-sculptured ribs.

Species 54. (Brit. Mus.)

EMARGINULA SCABRICOSTATA. *Ema. testâ parvâ, albâ, depressâ, costis quindecim minutissimè scabris, distantibus radiatâ; interstitiis concentricè liratis; apice post-mediani; fissurâ breviusculâ, subquadratâ.*

THE ROUGH-RIBBED EMARGINULA. Shell small, white, depressed, rayed with fifteen very minutely scabrous, distant ribs; interstices concentrically ridged; apex post-median; fissure rather short, squarish.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Isl. Corregidor, Bay of Manilla.

At first sight, the ribs of this little species appear smooth, but the lens shows that they are in reality very minutely scabrous.

Species 55. (Mus. Brit.)

EMARGINULA DEPRESSA. *Ema. testâ magnâ, subviridi, depressâ, costis nodosis inæqualibus radiatâ, anticè subcontractâ, posticè paulò magis expansâ; apice obtuso, ante mediano; costâ fissurali brevi; fissurâ brevissimâ.*

THE DEPRESSED EMARGINULA. Shell large, greenish, depressed, rayed with unequal nodose ribs, anteriorly a little contracted, posteriorly a little more expanded; apex obtuse, ante-median; fissural rib short; fissure very short.

BLAINVILLE. Manual de Malkologie.

Hab. Honduras.

Species 56. (Mus. Brit.)

EMARGINULA STELLATA. *Ema. testâ pallidè fulvâ, depressâ, costis rugosis, valdè inæqualibus, ad marginem prominentibus, acutis radiatâ; apice obtuso, centrali; costâ fissurali paulò obliquâ; fissurâ brevissimâ.*

THE STELLATED EMARGINULA. Shell pale fulvous, depressed, rayed with rugose very unequal ribs, prominent and sharp at the margin; apex obtuse, central; fissural rib a little oblique; fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Australia.

Somewhat resembling *Emarginula rugosa*, but with the ribs very sharply prominent at the margin, and the fissure a little on one side.

Species 57. (Mus. Brit.)

EMARGINULA IMBRICATA. *Ema. testâ magnâ, ovatâ, depressâ, fulvâ, medio ferruginosâ, costis rotundis,*

nodosis, inæqualibus, quarum tribus anticis majoribus radiatâ; apice centrali, obtuso; fissurâ brevissimâ.

THE IMBRICATED EMARGINULA. Shell large, ovate, depressed, fulvous, ferruginous in the middle, rayed with rounded, nodose, unequal ribs, of which the three anterior are the larger; apex central, obtuse; fissure very short.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Mouth of Victoria River, S. Australia.

Species 58. (Mus. Brit.)

EMARGINULA TASMANIÆ. *Ema. testâ rugosâ, pallidâ, conicâ, costis magnis, nodosis, inæqualibus radiatâ; apice elevato, valdè retrorso; costâ fissurali elongatâ, prominenti; fissurâ brevi.*

THE TASMANIAN EMARGINULA. Shell rugose, pale, conical, rayed with large, nodose, unequal ribs; apex elevated, much thrown back; fissural rib elongated, prominent; fissure short.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Emarginula, sp. 49, fig. 72.

Hab. Tasmania.

Species 59. (Fig. *a*, *b*, Mus. Brit.)

EMARGINULA JAPONICA. *Ema. testâ subovatâ, posticè subcontractâ, tenuiter costatâ, purpureo-fuscâ; apice valdè retrorso; dorso anticè arcuato; fissurâ breviusculâ, incisâ.*

THE JAPAN EMARGINULA. Shell subovate, posteriorly rather contracted, finely ribbed, purple-brown; apex much turned backwards; back arched in front; fissure rather short, incised.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Emarginula, sp. 36, figs. 43, 44.

Hab. Japan.

Species 60. (Mus. Brit.)

EMARGINULA GUADALOUPENSIS. *Ema. testâ rugosâ, conicâ, viridi, costis inæqualibus, clathratis, nodosis radiatâ; interstitiis foveolatis; apice elevato, acuminato; costâ fissurali prominenti; fissurâ brevissimâ.*

THE GUADALOUPE EMARGINULA. Shell rugose, conical, green, rayed with unequal, latticed, nodose ribs, with pitted interstices; apex elevated, acuminated; fissural rib prominent; fissure very short.

SOWERBY. Thesaurus Conchyliorum. Fissurellidæ, Emarginula, sp. 55, fig. 69.

Hab. Guadaloupe.

A rough, irregular shell, coarsely resembling *Emarginula Panhiensis*, but not having the symmetrical sculpture of that shell.

14 b

69 a

69 b

61

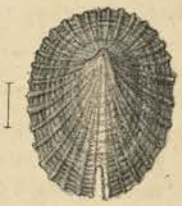
62

63

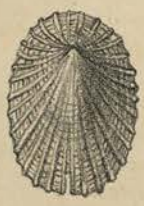
64

70 a

70 b



65



66 a

67

68

66 b

Sowerby del et lith

Vincent Brooks Day & Son lith.

EMARGINULA.

PLATE IX.

(Species 14. Fig. *b*, *c*.)

EMARGINULA VIMINEA, *A. Adams.* To replace figures *a* and *b*, Plate III., which were representations of *E. tenuistriata* repeated by mistake.

Species 61. (Mus. Brit.)

EMARGINULA TEXTILIS. *Ema. testâ ovatâ, costis solidis radiatâ, striis concentricis cinctâ, albidâ, subviridi circâ medium annulatâ; margine dentato; apice versùs marginem posticum declinato; costâ dorsali acutè elevatâ, minutè foveolatâ; fissurâ brevi, incisâ.*

THE TEXTILE EMARGINULA. Shell ovate, rayed with solid ribs, surrounded with concentric striæ, whitish, with a greenish ring about the middle; margin dentated; sloped towards the posterior margin; dorsal rib sharply raised, minutely pitted; fissure short, incised.

GOULD. Invertebrata of United States.

Hab. N. Ameriea.

Species 62. (Mus. Brit.)

EMARGINULA SCABRICULA. *Ema. testâ ovatâ, anticè paulò angustatâ; pallidè fulvâ, costis distantibus, acutè squamatis, radiatâ; liris concentricis inter costas conspicuis; apice acuto, ante medium recurvo; costâ dorsali elevatâ, fissurâ brevissimâ, incisâ.*

THE SHARP-SCALED EMARGINULA. Shell ovate, anteriorly a little narrowed; pale fulvous, rayed with distant acutely scaled ribs; concentric ridges conspicuous between the ribs; apex acute, recurved in front of the middle; dorsal rib raised, fissure very short, incised.

A. ADAMS. MS. in Cum. Coll.

Hab. ——?

Differing from *Emarginula rugosa* in the sharp prominence of the rather distant ribs.

Species 63. (Mus. ——? copied.)

EMARGINULA SCUTELLA. *Ema. testâ pallidè fulvâ, depressâ, irregulariter costatâ; costis inæqualibus, rotundis, approximatis, concentricè striatis; apice acuto, paulò post-medium recurvo; margine postico subangulato.*

THE LITTLE SHIELD EMARGINULA. Shell pale fulvous, depressed, irregularly ribbed; ribs unequal, rounded, approximate, concentrically striated; apex acute, curved backwards a little behind the middle; posterior margin rather angular.

DESHAYES. Conch. Isl. de la Réunion, Pl. XXXIV., f. 1, 2.

Hab. Isl. Bourbon, or Réunion.

An irregularly angular character in the posterior outline distinguishes this species.

Species 64. (Mus. Crosse.)

EMARGINULA THOMASI. *Ema. testâ parvâ, depressâ, posticè rotundatâ, anticè angustatâ, costis numerosis regularibus radiantibus, et striis elevatis concentricis concinnè cancellatâ, pallidè subviridi, fasciis olivaceis cinctâ; apice obtuso, paulò post medium inclinato; margine arcuato, intùs denticulato; fissurâ latâ; sulco dorsali distincto.*

THOMAS'S EMARGINULA. Shell small, depressed, rounded posteriorly, narrowed anteriorly, neatly cancellated with numerous regular radiating ribs and raised concentric striæ, pale greenish, encircled with olive bands; apex obtuse, inclined a little behind the middle; margin arched, denticulated within, fissure broad, with a distinct dorsal groove.

CROSSE. Journal de Conchyliologie, 1855, p. 43.

Hab. Aden, Red Sea.

Species 65. Mus. —— ? copied.)

EMARGINULA COSTULATA. *Ema. testâ ovatâ, elevatâ, pallidè subviridi, costis validis, rectangularibus, subdistantibus et liris concentricis distinctis, inæqualibus, quarum plurimis annulatis cancellatâ; apice valdè retrorso, canali dorsali profundi; fissurâ magnâ, incisâ.*

THE RIBBED EMARGINULA. Shell ovate, elevated, pale greenish, cancellated with strong rectangular, rather distant ribs and concentric distinct, unequal ribs, of which several are annular; apex much recurved, with a deep dorsal canal; fissure large, incised.

DESHAYES. Conch. Isl. de la Réunion, Pl. XXXIV., f. 5-3.

Hab. Isl. Bourbon, or Réunion.

Some of the concentric ridges are so raised over the ribs as to form scarcely interrupted rings.

Species 66. (Fig. *a*, *b*, Mus. ——? copied.)

EMARGINULA DECORATA. *Ema. testâ parvâ, subdepressâ, albâ, arcuatim convexâ, costellis radiantibus angustis, et liris interstitialibus planatis minutis concentricis sculptâ; apice obtuso, valdè retrorso; fissurâ brevi, incisâ.*

THE DECORATED EMARGINULA. Shell small, subdepressed, white, arched convexly, sculptured with narrow, radiating ribs and minute flattened, interstitial concentric ridges; apex obtuse, very backward; fissure short, incised.

DESHAYES. Conch. de l'Isl. de la Réunion, p. 49, Pl. VII., f. 68.

Hab. Isl. Réunion (Bourbon).

A very interesting and neatly sculptured minute species.

Species 67. (Fig. *a*, *b*, Mus. ——? copied.)

EMARGINULA FENESTRELLA. *Ema. testâ parvâ, albidâ, convexo-arcuatâ, oblongo-ovatâ, costis crassis, lævibus, rotundis radiantibus, et foveolis parvis, rotundis interstitialibus sculptâ; apice obtuso, valdè retrorso; costâ fissurali distincto; fissurâ breviùsculâ, incisâ.*

THE CASEMENT EMARGINULA. Shell small, whitish, convexly arched, oblong-ovate, sculptured with thick, smooth, rounded, radiating ribs, and small rounded insterstitial pits; apex obtuse, very backward; fissural rib distinct; fissure rather short, incised.

DESHAYES. Conch. de la Réunion, Pl. VII., fig. 12–15.

Hab. Isl. de la Réunion (Bourbon).

Species 68. (Mus. Deshayes.)

EMARGINULA DECORATA. *Ema. testâ albâ, ovatâ, costis validis subdistantibus munitâ, inter costas foveolis subquadratis concentricè cancellatâ; apice obtuso, retrorso; fissurâ breviùsculâ, latâ.*

THE DECORATED EMARGINULA. Shell white, ovate, strengthened with rather distant, strong ribs, concentrically cancellated between the ribs with squarish pits; apex obtuse, placed backwards; fissure rather short, broad.

DESHAYES Conchyliologie de l'Isle de la Réunion.

Hab. Isl. Réunion (Bourbon).

Species 69. (Fig. *a*, *b*, Mus. Sowerby.)

EMARGINULA OLDHAMI. *Ema. testâ albidâ, conicâ oblongâ, irregulariter hexagonâ, inæquilaterali, costis magnis nodosis quinque majoribus, interstitialibus minoribus radiantibus et liris parvis concentricis sculptâ; apice elevato, versùs marginem dextrum incurvo; costâ fissurali lamelliformi, prominenti, fissurâ brevi, profundâ.*

OLDHAM'S EMARGINULA. Shell whitish, conical, oblong, irregularly hexagonal, inequilateral, sculptured with five large, nodose, radiating ribs, some interstitial smaller ones and small concentric ridges; apex raised, bent in towards the right margin; fissural rib lamelliform, prominent, fissure short, deep.

Hab. Ceylon.

This remarkably formed species has some affinity with *Emarginula Panhiensis*, in which there is a slight tendency to the one sidedness so decided on the shell before us.

Species 70. (Fig. *a*, *b*, Mus. Sowerby.)

EMARGINULA TUMIDA. *Ema. testâ ovato-subrotundâ, albidâ, anticè subcontracto, costis prominentibus numerosis subserratis, acutis radiantibus et liris irregularibus concentricis cancellatâ; dorso anticè valdè arcuato, gibboso; costâ fissurali prominenti, fissurâ breviùsculâ, profundâ, incisâ; apice versùs marginem posticum inclinato.*

THE TUMID EMARGINULA. Shell ovate rotund, whitish, a little concentrated anteriorly, cancellated with numerous slightly serrated, sharp radiating ribs and irregular concentric ridges; back anteriorly much arched, gibbous; fissural rib prominent, fissure rather short, deep, incised; apex inclined towards the posterior margin.

SOWERBY.

Hab. ——?

Emarginula candida is a less tumid shell, and the notch is very short and not incised as in this species.

EMARGINULA.

	Plate.	Species.
aculeata, *A. Adams*	VII.	49
acuminata, A. Adams	I.	1
Adamsiana, *Sowerby*	IV.	29
alveolata, *A. Adams*	VII.	51
annulata, A. Adams	I.	1
aspera, Gould	I.	1
Australis, *Quoy et Gaimard*	III.	19
bellula, *A. Adams*	V.	36
cancellata, *Philippi*	II.	8
candida, *A. Adams*	VII.	45
candida, A. Adams	I.	1
capuliformis, *Philippi*	III.	16
catillus, A. Adams	VII.	50
clathrata, Adams and Reeve	VI.	43
clathrata, *Pease*	V.	35
clypeus, *A. Adams*	III.	21
concinna, *A. Adams*	II.	13
conica, Blainville	II.	9
conoidea, Gould	I.	1
costulata, *Deshayes*	IX.	65
crassa, *J. Sowerby*	IV.	26
crassicostata, *Sowerby*	VI.	38
crassilabrum, *A. Adams*	VI.	39
cratila, *A. Adams*	II.	12
cucullata, *A. Adams*	IV.	28
Cumingii, *Sowerby*	VI.	41
curvirostris, Deshayes	II.	9
Cuvieri, Savigny	I.	4
decorata, *Deshayes*	IX.	68
depressa, *Blainville*	I.	3
(and fig. 55, Pl. VIII.)		
denticulata, A. Adams	II.	6
dilecta, *A. Adams*	IV.	23
elongata, *Costa*	III.	17
emendata, *Sowerby*	IV. VIII.	27
(and fig. 27, *b*, *c*, Pl. VIII.)		
fenestrella, *Deshayes*	IX.	67
fissura, Linnæus	V.	33
fissurata, *Chemnitz*	I.	5
fuliginea, *A. Adams*	II.	10
fungina, Gould	I.	1
galericulata, *A. Adams*	III.	15
Guadaloupensis, *Sowerby*	VIII.	60
Huzardi, *Payraudeau*	I.	4
imbricata, *A. Adams*	VIII.	57
incisura, *A. Adams*	III.	18
Japonica, *Sowerby*	VIII.	59
lata, *Quoy*	VII.	50
lævicostata, *A. Adams*	VII.	48
longifissæ, *Sowerby*	VII.	52
maculata, *A. Adams*	V.	32
nodulosa, *A. Adams*	VI.	40
notata, *Linnæus*	VI.	42
obovata, *A. Adams*	IV.	24
Oldhami, *Neville*	IX.	69
Paivana, Crosse	IV. VIII.	27
Panhiensis, *Quoy*	VI.	43
picta, Dunker	II.	7
pileolus, Michaud	II.	9
planulata, *A. Adams*	III.	20
polygonalis, *A. Adams*	II.	6
pulchra, *A. Adams*	II.	7
pumila, *Arthur Adams*	VII.	46
punctata, *A. Adams*	V.	31
puncticulata, *A. Adams*	IV.	25
reticosa, *A. Adams*	V.	33
reticulata, *J. Sowerby*	V.	33
rosea, *Bell*	II.	9
rugosa, *Quoy*	I.	1
scabricostata, *A. Adams*	VIII.	54
scabricula, *A. Adams*	IX.	62
scabriuscula, *A. Adams*	V.	30
sculptilis, *A. Adams*	VIII.	53
scutella, *Deshayes*	IX.	63
scutulata, *Deshayes*	V.	37
solidula, Costa	IV.	26
solidula, *Philippi*	VI.	44
(and fig. 44 *c*, Pl. IX.)		
spinosa, *Deshayes*	IX.	66
stellata, *A. Adams*	VIII.	56
striatula, *Quoy*	VII.	47
sulcifera, *A. Adams*	II.	11
Tasmaniæ, *Sowerby*	VIII.	58
tenuicostata, *Sowerby*	I.	2
textilis, *Gould*	IX.	61
Thomasi, *Crosse*	IX.	64
tumida, *Sowerby*	IX.	70
Vanikoroensis, *Quoy*	V.	34
variegata, A. Adams	I.	5
variegata, *A. Adams*	IV.	22
viminea, *A. Adams*	III. IX.	14

MONOGRAPH

OF THE GENUS

GNATHODON.

"In contemplation of created things,
By steps we may ascend to God."—*Milton.*

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Sowerby del et lith

Vincent Brooks Day & Son Imp.

GNATHODON.

PLATE I.

Genus GNATHODON, *Gray.*

Testa bivalvis, æquivalvis, trigona vel subtrigona, epidermide induta; umbones distanti; dentes valvæ dextræ cardinales duo, parvi, laterales duo, posticus elongatus, anticus cuneiformis; valvæ sinistræ cardinalis unus, lateralis duo, posticus elongatus, anticus cuneiformis; impressiones musculares duæ, laterales; ligamentum in foveam trigonam internam dispositum.

Shell bivalve, æquivalve, trigonal or subtrigonal, covered with an epidermis; umbones distant; teeth in the right valve, two cardinal, small, two lateral, posterior elongated, anterior cuneiform; of the left valve one cardinal, two lateral, posterior elongated, anterior cuneiform; muscular impressions two, lateral; ligament placed in a trigonal internal pit.

Syn. RANGIA. Desmoulins.

This genus belongs to the *Mactra* group, and is remarkable for the cuneiform character of the anterior lateral teeth, and for the deep central pit in the hinge for the reception of the cartilage or ligament. None of the species belong decidedly either to salt or fresh water, but the type is from Lake Pontchartrain in New Orleans, where it has been used as an article of food, and three of the other species, which have much thinner shells covered with a lighter epidermis, are found in mud-banks in brackish water in the Gulf of Mexico. One of the remaining two is from Guadaloupe.

Species 1. (Mus. Sowerby.)

GNATHODON CUNEATUS. *Gna. testâ ovato-subtrigonâ, crassâ, epidermide crasso olivaceo indutâ; latere antico brevi, rotundatim tumido; umbonibus elevatis, magnis, distantibus; latere postico angulato, ante angulum depresso, ad terminum subrostrato.*

THE CUNEATE GNATHODON. Shell ovate, subtrigonal, thick, covered with a thick olive epidermis; anterior side short, roundly tumid; umboes elevated, large, distant; posterior side angular, depressed in front of the angle, somewhat beaked at the end.

GRAY. American Journal of Science.

Rangia cyrenoides, Desmoulins.

Hab. Lake Pontchartrain, New Orleans.

The larger the size to which specimens grow, the less oval and more rostrated they become. The smaller specimens, with a lighter and greener epidermis, are more ovate.

Species 2. (Mus. Brit.)

GNATHODON GUADALOUPENSIS. *Gna. testâ tenuiùsculâ, albâ, subtrigonâ, epidermide tenui, pallidè stramineâ indutâ; latere postico obliquè biangulato, producto, subrostrato, ad terminum truncato, latere antico amplo, rotundo.*

THE GUADALOUPE GNATHODON. Shell rather thin, white, subtrigonal, covered with a thin, pale straw-coloured epidermis; posterior side obliquely biangular, produced, somewhat beaked, truncated at the end, full, rounded at the anterior side.

PETIT. Journal de Conchyliologie.

Hab. Guadaloupe.

Although different looking shells, this species and the following four present all the essential characters of the genus.

Species 3. (Mus. Brit.)

GNATHODON CANTRAINEI. *Gna. testâ tenuiùsculâ, albâ, subtrigonâ, epidermide tenui, pallidè stramineâ indutâ, inflatâ; latero postico obliquè biangulato, paulò producto; latere antice breviùsculo, rotundo; margine ventrali æqualiter convexo.*

CANTRAINE'S GNATHODON. Shell rather thin, white, subtrigonal, covered with a thin, pale straw-

coloured epidermis, inflated; posterior side obliquely biangular, a little produced; anterior side rather short, rounded; ventral margin equally convex.

RECLUZ. —— ?

Hab. —— ?

This species is perhaps correctly distinguished from the preceding by being shorter, less produced and rostrated at the posterior end, and being on the whole a much more evenly inflated shell.

Species 4.

GNATHODON TRIGONUS. *Gna. testâ trigonâ, compressâ, latere postico biangulato, declivi, ad terminum truncato; umbonibus haud tantum elevatis; latere antico brevi, declivi.*

THE TRIGONAL GNATHODON. Shell trigonal, compressed, posterior side biangular, sloped, truncated at the end; umboes not much elevated; anterior side short, sloped.

PETIT. Journal de Conchyliologie.

Hab. California. Gulf of Mexico.

Much more compressed and trigonal than the two preceding.

Species 5. (Mus. Brit.)

GNATHODON ROSTRATUS. *Gna. testâ compressâ, valdè inæquilaterali, subelongatâ; latere postico producto, declivi, leviter biangulato, ante angulos margine convexo; latere antico brevissimo; umbonibus depressis.*

THE BEAKED GNATHODON. Shell compressed, very inequilateral, rather elongated; posterior side produced and sloped, slightly biangular, with a convex margin in front of the angles; anterior side very short; umboes depressed.

PETIT. Journal de Conchyliologie.

Hab. Gulf of Mexico.

Species 6. (Mus. Sowerby.)

GNATHODON PARVUS. *Gna. testâ parvâ, trigonâ, ventricosâ, pallidâ; latere postico acutè angulato, post angulum lato, depresso, ad terminum rostrato; latere antico brevi, declivi; umbonibus prominentibus, posticè angulatis.*

THE SMALL GNATHODON. Shell small, trigonal, ventricose, pale; posterior side acutely angular, broad and depressed behind the angle, beaked at the end; anterior side short, sloped; umboes prominent, posteriorly angulated.

PETIT. —— ?

Hab. Mexico.

MONOGRAPH

OF THE GENUS

CEMORIA.

"Beyond the fall of dews
Deeper than plummet lies."—*Longfellow.*

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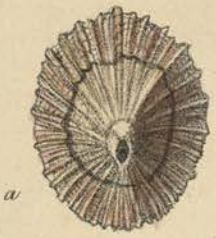

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6a

6b

5

7a

8

4b

Sowerby del et lith

Vincent Brooks Day & Son Imp

CEMORIA.

PLATE I.

Genus CEMORIA, *Leach.*

Testa patelliformis, ovata, conica, costis radiata; apex integrus, posticè recurvus; foramen infrà apicem positus, internè laminâ arcuatâ testaceâ semiclausus.

Shell patelliform, ovate, conical, rayed with ribs; apex entire, posteriorly recurved; foramen placed below the apex and the margin, half-closed within by an arched testaceous lamina.

The species of this genus have a Northern range. In North America, the Northern parts of Britain, Greenland, and Norway, are their habitats chiefly to be found. One species was discovered by Mr. Adams in Japan. Although, like RIMULA, the shells have the foramen placed half-way between the apex and the margin, unlike that genus they have it internally half vaulted by a shelly plate.

Species 1. (Mus. Brit.)

CEMORIA GALEATA. *Cem. testâ ovatâ, fumoso-fuscâ, costis numerosis rotundis, sublævigatis et paucis interstitialibus enuibus radiatâ latere postico breviusculo.*

THE CRESTED CEMORIA. Shell ovate, smoky-brown, rayed with numerous rounded rather smooth ribs, and a few thin interstitial ones posterior side rather short.

GOULD. United States Expedition. Shells.

Hab. Puget's Sound.

A little dull-coloured species without many characteristic points.

Species 2. (Mus. Brit.)

CEMORIA COGNATA. *Cem. testâ parvâ, albâ, costis rotundis, prominentibus, concentricè rugatis, subdistantibus radiatâ, interstitiis concentricè liratis; apice acuminato, elevato.*

THE COGNATE CEMORIA. Shell small, white, rayed with rounded, prominent, concentrically wrinkled, rather distant ribs, with concentrically ridged interstices; apex acuminated, elevated.

GOULD. Shells of the United States Expedition.

Hab. Orange Harbour, Couthenay.

A sharp acuminated species.

Species 3. (Fig. *a*, *b*, Mus. Brit.)

CEMORIA CONICA. *Cem. testâ parvâ, elevatâ, conicâ, costis parvis, rotundis, alternatis, concentricè striatis radiatâ; dorso elevato, apice valdè recurvo.*

THE CONICAL CEMORIA. Shell small, elevated, conical, rayed with small, rounded, alternating, concentrically striated ribs; back elevated, apex much recurved.

D'ORBIGNY. Amérique Méridionale, p. 471, Pl. 78.

Hab. Central America.

Species 4. (Fig. *a*, *b*, Mus. Brit.)

CEMORIA FASTIGIATA. *Cem. testâ albâ, ovatâ, conicâ, altissimâ, costis subangulatis, nodosis, alternatis, tenuibus radiatâ; apice elevato, post-mediani, paulò recurvo; dorso anticè subarcuato, posticè ferè perpendiculariter declivi.*

THE HIGH-TOPPED CEMORIA. Shell white, ovate, conical, much elevated, rayed with rather angular, nodose, alternative, thin ribs; apex elevated, post-median, a little recurved; back a little arched anteriorly, sloped nearly perpendicularly behind.

A. ADAMS. Proc. Zool. Soc., 1851, p. 228.

Hab. ——?

The most elevated of all the species.

Species 5. (Fig. *a*, *b*, Mus. Brit.)

CEMORIA CUCULLATA. *Cem. testâ elevatâ, fulvâ, magnâ, ætate juniori subspiraliter acuminatâ; costis inæqualibus, angulatis, concentricè tenuiter rugatis*

radiatâ, interstitiis concentricè striatis; apice ante-mediani; lineâ dorsali anticè declivi, rectiùsculo.

THE HOODED CEMORIA. Shell elevated, fulvous, large, in a young stage almost spirally acuminated; rayed with unequal, angular concentrically finely wrinkled ribs, with concentrically striated interstices, apex ante-median, dorsal line sloped, rather straight.

GOULD. United States Expedition. Shells, p. 14.

Hab. —— ?

This shell gives all the characteristics of the genus on a larger scale than the original type.

Species 6. (Fig. *a*, *b*, Mus. Brit.)

CEMORIA NOBILIS. *Cem. testâ breviùsculâ, ovatâ, conicâ, elevatissimâ; ætate juniori ferè spiraliter acuminatâ: costis octodecim circà distantibus, lævigatis, majoribus, et intermediis nonnullis tenuissimis radiatâ; apice acuminato, perelevato; dorso utrinque valdè declivi.*

THE NOBLE CEMORIA. Shell rather short, ovate, conical, much elevated; in a young stage almost spirally acuminated; rayed with about eighteen distant, smooth, larger, and some very thin intermediate ribs; apex acuminated, much elevated, with the back on both sides much sloped.

A. ADAMS. Proc. Zool. Soc.

Hab. Okosiris, Japan.

Species 7. (Fig. *a*, *b*, Mus. MacAndrew.)

CEMORIA NOACHINA. *Cem. testâ albâ, conicâ, elevatâ, posticè subexpansâ, anticè magis angustatâ; costis inæqualibus, læviùsculis posticè distantibus, anticè magis numerosis radiatâ; apice elevato, post-mediani.*

THE NOACHIAN CEMORIA. Shell white, conical, elevated, posteriorly rather expanded, narrower anteriorly; rayed with unequal, rather smooth, posteriorly distant, anteriorly more numerous ribs; apex elevated, post-median.

LINNÆUS, Mantissa, 551.

Patella fissurella, Müller.

Patella apertura, Montagu.

Rimula Flemingii, Macgillivray.

Cemoria princeps, Mighæls.

Hab. Northern Europe.

Species 8. (Mus. Brit.)

CEMORIA FALKLANDICA. *Cem. testâ ovatâ, albâ, elevatâ, costis subdistantibus, concentricè striatis radiatâ; apice recurvo, elevato, post-mediani.*

THE FALKLAND CEMORIA. Shell ovate, white, elevated, rayed with rather distant, concentrically striated ribs; apex recurved, elevated, post-median.

A. ADAMS. Sowerby's Thesaurus. Fissurellidæ, Cemoria, Sp. 7, Plate X. fig. 14.

Hab. Falkland Islands.

The ribs are more distant and equal than those of *Cemoria Noachina*, and the oval outline is as broad anteriorly as posteriorly.

INDEX OF SPECIES.

	Species.
apertura, Montague	7
cognata, *Gould*	2
conica, *D'Orbigny*	3
cucullata, *Gould*	5
Falklandica, *A. Adams*	8
fastigiata, *A. Adams*	4
fissurella, Müller	7
Flemingii, Macgillivray	7
galeata, *Gould*	1
Noachina, *Linnæus*	7
nobilis, *A. Adams*	6
princeps, Mighæls	7

MONOGRAPH

OF THE GENUS

RIMULA.

"His creating hand
Nothing imperfect or deficient left
Of all that He created."—*Milton.*

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

RIMULA.

PLATE I.

Genus RIMULA, *Defresne.*

Testa patelliformis, tenui, cancellata; apice recurvo; dorso arcuato; fissurâ simplici, inter apicem et marginem intermediâ.

Shell patelliform, thin, cancellated; apex recurved; back arched; fissure simple, intermediate between the apex and the margin.

The recent species of this interesting little genus, formerly known only in a fossil state, are, with the exception of one from Mazatlan, found in the Philippine Islands, and first collected there by the late Mr. Cuming.

The gradation in the several genera of Fissurellidæ is marked in the position of the fissure. In *Fissurella*, it is simply a hole in the apex; in *Cemoria* it is just in front of the apex, leaving it entire and generally pointed, and being vaulted over by a little septum on the inside; in *Cranopsis* the septum half covers the fissure on the inside, but the latter is removed to halfway between the apex and the margin; in RIMULA the fissure is in a similar situation, but has no internal septum; then in *Emarginula* the fissure, commencing about halfway down the dorsal ridge, remains open to the margin and graduates through many species in commencing nearer and nearer to the margin until it becomes lost in an almost imperceptible sinus. In the genus *Zeidera*, there is an internal septum near the posterior margin and a fissure, like that of *Emarginula*, in the anterior margin.

Species 1. (Fig. *a*, *b*, Mus. Brit.)

RIMULA EXQUISITA. *Rim. testâ ovato-oblongâ, albâ, moderatè elevatâ, costis radiantibus tenuibus, et liris concentricis concinnè cancellatâ; dorso arcuato, apice valdè retrorso.*

THE EXQUISITE RIMULA. Shell ovate-oblong, white, moderately elevated, neatly cancellated with thin radiating ribs and concentric ridges; back arched, apex turned far back.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Several of the Philippine Islands.

This is the largest of the species and of exquisite sculpture.

Species 2. (Mus. Brit.)

RIMULA CUMINGII. *Rim. testâ parvâ, fulvâ, ovatâ, costis radiantibus rotundis concentricè rugatis et liris concentricis cancellatâ; dorso elevato; apice acutè recurvo.*

CUMING'S RIMULA. Shell small, fulvous, ovate, cancellated with rounded concentrically wrinkled ribs and concentric ridges; back elevated; apex sharply recurved.

A. ADAMS. Proc. Zool. Soc., 1851.

Rimula echinata, Gould.

Hab. Eastern Seas.

Species 3. (Mus. Brit.)

RIMULA PROPINQUA. *Rim. testâ parvâ, albâ, minutè cancellatâ; costellis radiantibus prominentioribus; duabus versùs marginem anticum convergentibus; dorso elevato; apice acuto, recurvo.*

THE NEIGHBOURING RIMULA. Shell small, white, minutely cancellated; radiating ribs more prominent; two converging towards the anterior margin; back elevated; apex acute, recurved.

A. ADAMS. Proc. Zool. Soc., 1851.

Hab. Calapan, Philippines.

Species 4. (Mus. Brit.)

RIMULA CARINATA. *Rim. testâ parvâ, albâ, costellis tenuibus, confertis radiatâ, interstitiis minutissimè foveolatis; apice valdè recurvio, planulatim carinato.*

THE KEELED RIMULA. Shell small, white, rayed with

thin, close ribs, with interstices very minutely fitted; apex strongly recurved, flatly keeled.

A. Adams. Proc. Zool. Soc., 1851.

Hab. Misamis, Isl. Mindinao, Philippines.

A curious characteristic of this little shell is a sort of flattened keel extending from the coiled apex to the fissure. Mr. Adams describes this as being formed by the convergence of several apical rays.

Species 5. (Mus. Brit.)

Rimula Mazatlanica. *Rim. testâ minutâ, pallidè fulvâ, depressâ, oblongâ, costis crassis, subimbricatis, subdistantibus radiatâ.*

The Mazatlan Rimula. Shell minute, pale fulvous, depressed, oblong, rayed with thick, subimbricated, rather distant ribs.

Carpenter (P. P.) Shells of Mazatlan.

Hab. Mazatlan.

MONOGRAPH

OF THE GENUS

CARDILIA.

"Full Nature swarms with life;
One wondrous mass,
Of animals or atoms organized."—*Thomson.*

1

2

3a

3b

3c

Sowerby del et lith.

Vincent Brooks Day & Son Imp

CARDILIA.

PLATE I.

Genus CARDILIA, *Deshayes.*

Testa bivalvis, æquivalvis, inæquilateralis, umbonibus productis, inflatis, spiralibus. Cardo tenuis, dente cardinali minimo, foveolâ post dentem etiam minimâ. Infrà umbonem processus cochleariformis ligamentum continens. Impressiones musculares duabus, postica in laminem septiformem projecta, antica semilunaris.

Shell bivalve, equivalve, inequilateral, with produced, inflated, spiral umbones. Hinge thin, with a very small cardinal tooth and a very small fossette behind the tooth. Below the umbones is a spoon-shaped projection containing the ligament. Muscular impressions two, the posterior one projected in a septiform lamina, the anterior semilunar.

The ligamentiferous pit on a spoon-shaped process in the hinge seems to remove this little genus of shells from the neighbourhood of the family of CARDIACIÆ, in which it has been placed. The posterior muscle mark being projected into a sort of shelf or septum is analogous to that of *Cucullæa.* As forming a genus, the *Cardiliæ*, of which only three species are known, stand alone. They are from China and the Philippines.

Species 1. (Mus. Brit.)

CARDILIA SEMISULCATA. *Car. testâ crassâ, subovatâ, albâ, anticè lævi, posticè propè marginem decussatâ, indè usque ad medium radiatim inter liras validas profundè sulcatâ; margine postico-ventrali acutè dentato; umbonibus prominentibus, lateralibus, spiraliter incurvis.*

THE HALF-SULCATED CARDILIA. Shell thick, sub-ovate, white, smooth in front, decussated near the margin posteriorly, thence to the middle radiately deeply sulcated between strong ridges; posterior-ventral margin sharply toothed; umbones prominent, lateral, spirally incurved.

LAMARCK. *Ed. Deshayes.*

Hab. China.

The ribs in this species are distinct and strong.

Species 2. (Mus. Brit.)

CARDILIA INERMIS. *Car. testâ subquadratâ, tenui, albâ, anticè lævi, posticè tenuissimè radiatim striatâ; umbonibus parvulis, terminalibus; margine postico-ventrali tenuiter serrato.*

THE UNARMED CARDILIA. Shell subquadrate, thin, white, smooth in front, posteriorly very finely radiately striated; umbones rather small, terminal; posterior-ventral margin finely striated.

DESHAYES. *Ed. Lamarck.*

Hab. Philippines.

More square in form and having the umbones less prominent than the typical species.

Species 3. (Fig. *a*, *b*, *c*, Mus. Brit.)

CARDILIA MARTINII. *Car. testâ perpendiculariter oblongâ, subovatâ, albâ, anticè et medio lævigatâ, posticè subangulatâ, sulcatâ; margine postico-ventrali dentato; umbonibus productis, validè curvis.*

MARTINI'S CARDILIA. Shell perpendicularly oblong, rather ovate, white, smooth in the front and middle, rather angular and sulcated; posterior-ventral margin toothed; umbones produced, much curved.

DESHAYES. *Ed. ? Lamarck.*

Hab. China.

MONOGRAPH

OF THE GENUS

CRANOPSIS AND ZEIDORA.

"He prayeth best, who loveth best
All things both great and small."—*Coleridge.*

1a

2a

2b

1b

Zeidora

1a

1b

2

Sowerby del et lith.

Vincent Brooks Day & Son Imp

CRANOPSIS AND ZEIDORA.

Genus CRANOPSIS, *A. Adams.*

Testa capuliformis, extùs cancellata; apice recurvo, integro; fissura in medio posita, inter apicem et marginem anticum, fornice interno arcuato.

Shell cap-shaped, cancellated outside; apex recurved, entire; fissure placed midway between the apex and the anterior margin, internal vault arched.

The only two species known of this genus are from Japan. The position of the foramen is the same as in the preceding genus, *Rimula*; but, unlike that genus, it has the internal vaulted septum of *Cemoria*.

Species 1. (Fig. *a*, *b*, Mus. Brit.)

CRANOPSIS PILEOLUS. *Cra. testâ pileiformi, costellis radiantibus crenulatis; apice posticè valdè incurvato; fissurâ anticè acutâ; margine posticè reflexo; dorso planulatim quasi-carinato.*

THE CAP-SHAPED CRANOPSIS. Shell cap-shaped, with crenulated radiating riblets; apex much incurved posteriorly; fissure anteriorly sharp; margin posteriorly reflected; back with a kind of flattened keel.

A. ADAMS. Sowerby's Thesaurus. Fissurellidæ, Cranopsis, sp. 1, fig. 1, 2.

Hab. Mino-Sima, Japan.

The apex of this shell is coiled and extends posteriorly a little beyond the margin.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

CRANOPSIS PELEX. *Cra. testâ conicâ, acuminatâ, costellis radiantibus et liris minutis concentricis cancellatâ; apice acuminato, recurvo, dorso anticè posticèque declivi.*

THE HELMET-SHAPED CRANOPSIS. Shell conical, acuminated, cancellated with radiating riblets and minute concentric ridges; apex acuminated, recurved, back sloped anteriorly and posteriorly.

A. ADAMS. Annals and Magazine of Natural History for 1860.

Hab. Mino-Sima, Japan.

Genus ZEIDORA, *A. Adams.*

Testa patelliformis, oblonga, depressa, extùs cancellata; apice post-marginali; margine antico fissurato; aperturâ ovatâ, posticè laminâ septiformi, transversâ, subtrigonâ diviso.

Shell patelliform, oblong, depressed, cancellated on the outside; apex post-marginal, anterior margin fissured; aperture ovate, posteriorly divided by a septiform, transverse, somewhat trigonal lamina.

The *Zeidoræ*, like the *Cranopsidæ*, are comparatively recent discoveries associated with the name of Arthur Adams and with the shores of Japan. Having a septiform plate, like that of *Crepidula* in form, but perhaps more analogous to the small vaulted lamina under the foramen in *Cemoria*, and yet having the marginal slit of *Emarginula*, this curious little genus affords an interesting example of the ever-varying forms of Nature.

Species 1. (Fig. *a*, *b*, Mus. Brit.)

ZEIDORA RETICULATA. *Zei. testâ oblongâ, dorso convexâ, lineis elevatis radiantibus et liris concentricis pulcherrimè decussatâ; aperturâ margine crenulatâ; fissurâ marginali angustâ, oblongâ.*

THE RETICULATED ZEIDORA. Shell oblong, back convex, very beautifully decussated with raised radiating lines and concentric ridges; aperture crenulated at the margin; marginal fissure narrow, oblong.

A. ADAMS. Ann. and Mag. of Nat. Hist.

Hab. Mino-Sima, Japan.

The form is more convex and the fissure more narrow and deeply cut than in the next species.

Species 2. (Mus. Brit.)

ZEIDORA CALCEOLINA. *Zei. testâ oblongâ, depresso-convexâ, costellis radiantibus et liris concentricis eleganter cancellatâ; sulco mediano lateribus elevatis; apice posticè deflexo, septo margine acuto, integro.*

THE SLIPPER ZEIDORA. Shell oblong, depressed-convex, elegantly cancellated with radiating riblets and concentric ridges; middle sulcus with elevated sides; apex bent down posteriorly; septum with a sharp, entire margin.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1860.

Hab. Mino-Sima, Japan.

The dorsal groove forms a sort of bróad double-edged keel, pitted between the two edges.

MONOGRAPH

OF THE GENUS

TYPHIS.

"The playmate of the waves" . . .—*Coleridge.*

1a

2a

2b

3

4a

4b

1b

Sowerby del et lith.

Vincent Brooks Day & Son. Imp.

TYPHIS.

PLATE I.

Genus TYPHIS, *Montfort.*

Testa fusiformis, canalifera, varicosa; varicibus utroque anfractu tribus; anfractibus angulatis, ad angulum ante utramque varicem tubam gerentibus; tubis intùs penetrantibus, ad apicem apertis; canali clauso. Operculum corneum, concentricum, nucleo subterminali.

Shell fusiform, with a canal, varicose; varices three on each whorl; whorls angular, bearing a tube before each varix at the angle; tubes penetrating within, open at the apex; canal closed. Operculum horny, concentric with nearly terminal nucleus.

A tube on the angle of the whorls in front of each varix, sometimes joined to it, but more generally distinct from it and placed half-way between the two varices, forms the distinguishing character of the shells of this genus. In other respects they do not differ from Murices with three varices. The type species, *T. Sowerbeyi*, is a Mediterranean shell. The other species are from Western Columbia, Western Africa, Japan, Borneo, and New Zealand.

Species 1. (Fig. *a*, *b*, Mus. Brit.)

TYPHIS GRANDIS. *Typ. testâ magnâ, solidâ, inter varices purpureo-castaneâ; anfractibus rotundo-angulatis; varicibus fulvis, crassis, ad marginem crispatis, ad canalem expansis; tubis breviùsculis, magnis inter varices medianis; canali lato; aperturâ parvâ.*

THE LARGE TYPHIS. Shell large, solid, purple-chestnut between the varices; whorls roundly-angular; varices fulvous, thick, curled at the edge, expanded at the canal; tubes rather short, large halfway between the varices; canal broad; aperture wide.

A. ADAMS. Proc. Zool. Soc., 1865.

Hab. ——?

This large solid shell is in every way typical of the genus.

Species 2. (Fig. *a*, *b*, Mus. Cum. in Brit.)

TYPHIS CORONATUS. *Typ. testâ oblongâ, pallidè fulvâ; anfractibus supernè sobrotundis; varicibus crassis, spiraliter liratis, ad suturam uncinnatis; tubis brevissimis juxta varicem succedentem locatis; canali lato, recto, ad terminum truncato.*

THE CORONATED TYPHIS. Shell oblong, pale fulvous; whorls rounded above; varices thick, spirally ridged, hooked at the suture; tubes very short, placed near the succeeding varix; canal broad, straight, truncated at the end.

BRODERIP. Proc. Zool. Soc., 1832.

Hab. Caraccas Bay.

This interesting species has remained represented by a unique and somewhat undeveloped shell in the Cumingian collection at the British Museum.

Species 3. (Mus. Brit.)

TYPHIS FIMBRIATUS. *Typ. testâ magnâ, tenuiùsculâ, oblongâ; anfractibus inter varices subflavidis, infrà medium castaneo unifasciatis; propè varices purpureo fasciatis; varicibus expansis, ad faciem radiatim fimbriatis, supernè cuneatis, dorso crispatis; tubis magnis, propè varicem succedentem locatis; canali latissimo.*

THE FIMBRIATED TYPHIS. Shell large, rather thin, oblong; whorls yellowish between the varices, with a single band of chestnut below the middle; with a purple band near the varices; varices expanded, fringed in rays on the face, cuneate above, curled at the back; tubes large, placed near the succeeding varix; canal very broad.

A. ADAMS. Proc. Zool. Soc., 1865.

Hab. ——?

Remarkable for the broad expansion of the fringed varix.

Species 4. (Fig. *a*, *b*, Mus. Cum. in Brit.)

TYPHIS CUMINGII. *Typ. testâ clavatâ, pallidè fulvâ, inter varices purpureâ, castaneo maculatâ; anfractibus supernè inflatis, infrà angustatis, dimidiatim inter varices tuberculis elongatis cum tubis convexis gerentibus; varicibus angustatis, ad suturam aculeatis, ad canalem haud continuis, ultimo ad faciam fimbriato; canali elongato, angustato.*

CUMING'S TYPHIS. Shell clavate, pale fulvous, purple between the varices, chestnut-spotted; whorls inflated above, narrow below, bearing elongated tubercles connected with the tubes half-way between the varices; varices angular, aculeated at the suture, not continued at the canal, the last fringed on the face; canal long, narrow.

BRODERIP. Proc. Zool. Soc., 1832.

Hab. Bay of Caraccas.

Resembling *Murex Haustellum* in form.

5ª

6ª

6ᵇ

5ᵇ

7ª

7ᵇ

5ᶜ

8ª

8ᵇ

9

Sowerby del. et lith.

Vincent Brooks Day & Son, Imp.

TYPHIS.

PLATE II.

Species 5. (Fig. *a*, *b*, *c*, Mus. Brit.)

TYPHIS SOWERBYI. *Typ. testâ subturbinatâ, albidâ, vel fuscâ; spirâ elevatâ; anfractibus infrà attenuatis; varicibus extantibus, laqueatis, expansis, supernè uncinatis, tubis intermediis ultimis elongatis, subrecurvis, ad canalem truncatis; canali angusto, retrorso.*

SOWERBY'S TYPHIS. Shell subturbinated, whitish, or brown; spire elevated; whorls rather attenuated below; varices projecting, fluted, expanded, hooked above; tubes intermediate, the last elongated, rather recurved, truncated at the canal; canal narrow, recurved.

BRODERIP. Proc. Zool. Soc., 1832.

Hab. Mediterranean.

Species 6. (Fig. *a*, *b*, Mus. Brit.)

TYPHIS NITENS. *Typ. testâ brevi, albido-subroseâ, nitenti; spirâ ultimum anfractum longitudine ferè æquanti; varicibus laminatis, extantibus, suprà angulum elevatis, cuneatis; tubis medianis, canali brevi, rectiùsculo.*

THE SHINING TYPHIS. Shell short, pinky-white, shining; spire nearly equal in length to the last whorl; varices laminar, standing out raised above the angle, cuneate; tubes medial; canal short, rather straight.

HINDS. Voyage of the Sulphur: Mollusca, p. 10, pl. 3, f. 5, 6.

Hab. Isl. St. Macassar.

Species 7. (Fig. *a*, *b*, Mus. Brit.)

TYPHIS PINNATUS. *Typ. testâ albâ, tenui, subovatâ, cancellatâ; spirâ elevatâ; varicibus latis, laqueatis, fimbriatis, infrà expansis; canali breviùsculo.*

THE PINNATED TYPHIS. Shell white, thin, rather ovate, cancellated; spire elevated; varices broad, fluted, fringed, expanded below; canal rather short.

BRODERIP. Proc Zool. Soc., 1832.

Hab. ——?

The original type was long a unique shell in Mr. Wallace's small collection. It was lost, but there are now two specimens in the Cumingian collection of the British Museum.

Species 8. (Fig. *a*, *b*, Mus. Taylor.)

TYPHIS DUPLICATUS. *Typ. testâ ovato-acuminatâ, inter varices castaneâ; varicibus arcuatim recurvis, cum tubis interstitialibus confluentibus, tubas latas duplicatas efformantibus; spirâ acuminatâ, elevatâ; canali latiùsculo, tenui.*

THE DOUBLED TYPHIS. Shell ovate-acuminate, chestnut between the varices; varices arched backwards, confluent with the interstitial tubes, forming broad double tubes; spire acuminated, elevated; canal rather broad, thin.

SOWERBY. Proc. Zool. Soc., 1870.

Hab. China Seas.

This is the second species discovered in which the varix is so bent back as to be confluent with the preceding tube, the first being *T. arcuatus* of Hinds.

Species 9. (Mus. Brit.)

TYPHIS BELCHERI. *Typ. testâ fusiformi, albidâ; anfractibus rotundis; varicibus angustis, laqueatis, infrà pinnatis, suprà uniplicatis, arcuatim expansis, ad terminum valdè uncinnatis, acuminatis; tubis intermediis, recurvis; spirâ elevatâ.*

BELCHER'S TYPHIS. Shell fusiform, whitish; whorls rounded; varices narrow, fluted, pinnated below, uniplicated above, with a curved expansion; much hooked and sharpened at the end; tubes intermediate, recurved; spire elevated.

BRODERIP. Proc. Zool. Soc., 1832.

Hab. Cape Blanco.

10a

10b

10c

11

12a

12b

13

14a

14b

15

Sowerby del et lith.

Vincent Brooks Day & Son Imp

TYPHIS.

PLATE III.

Species 10. (Mus. Brit.)

TYPHIS ARCUATUS. *Typ. testâ brevi, ovatâ, fuscâ vel fulvidâ; varicibus arcuatis, tumidis, ad tubas precedentes in uno junctis; spirâ elevatâ; canali latiùsculo, ad terminum attenuato, recurvo.*

THE ARCHED TYPHIS. Shell short, ovate, brown or slightly fulvous; varices arched, tumid, joined in one to the preceding tubes; spire elevated; canal rather broad, attenuated towards the end, recurved.

HINDS. Voyage of the Sulphur, Mollusca, p. 10, Pl. III., f. 5, 6.

Typhis Japonicus, A. Adams.

Hab. Cape of Good Hope—Japan.

In this species the duplication of the tube is less conspicuous than in *Typhis duplicatus*.

Species 11. (Mus. Angas).

TYPHIS CLERII. TYP. *testâ fusiformi, pallidè fulvâ, fusco obscurè fasciatâ; anfractibus supernè rotundis, infrà attenuatis; varicibus digitatis, digitis uncinnatis; tubis intermediis, distinctis; canali elongato, recurvo.*

CLERY'S TYPHIS. Shell fusiform, pale fulvous, obscurely banded with brown; whorls rounded above, attenuated below; varices fingered, fingers uncinnated; tubes intermediate, distinct; canal elongated, recurved.

PETIT. Révue Zoologique, 1846.

Hab. New Zealand.

Species 12. (Fig. *a*, *b*, Mus. Nobis.)

TYPHIS EXPANSUS. *Typ. testâ latâ, pallidè fulvâ, subturbinatâ; anfractibus supernè angulatis, suprà angulum planulatis; varicibus angulatis, supernè in spinam acuminatam elevatis, ultimo latè expanso, supernè uniplicato, retrorsim arcuato, ad marginem acutè laqueato; canali lato, breviùsculo; tubis propè varices precedentes locatis, retrorsim curvis.*

THE EXPANDED TYPHIS. Shell broad, pale fulvous, somewhat turbinated; whorls angular above, flattened above the angle; varices angular, raised above in an acuminated spine, the last broadly expanded, with a single fold above, arched backwards, sharply fluted at the edge; canal broad, rather short; tubes placed near the preceding varices, curved backwards.

SOWERBY (Junr.) 1874.

Hab. ——?

Species 13. (Mus. Brit.)

TYPHIS QUADRATUS. *Typ. testâ subquadratâ, solidâ, inter varices fulvis, fusco strigatis; anfractibus pyriformibus; tubis intermediis, breviùsculis; varicibus crassis, albis, pallidè strigatis, medio fimbriatis, suprà uncinnatis; canali lato, propè terminum angusto, obliquè retrorso.*

THE SQUARE TYPHIS. Shell subquadrate, solid, fulvous between the varices, striped with brown; whorls pyriform; tubes intermediate, rather short; varices thick, white, with pale stripes, fringed in the middle, hooked above; canal broad, narrow near the end, turned obliquely backwards.

HINDS. Voyage of the Sulphur, Mollusca, p. 10, Pl. III., IV., figs. 5, 6.

Hab. Gulf of Nicoya, Bay of Guayaquil.

Species 14. (Mus. Angas.)

TYPHIS YATESII. *Typ. testâ fusiformi, brevi, pallidè roseâ; anfractibus pyriformibus; varicibus pinnatis, medio leviter laqueatis, infrà unilobatis, suprà elevatis, acutè uncinnatis; tubis intermediis, breviùsculis, distinctis; canali brevi, lato.*

YATES'S TYPHIS. Shell fusiform, short, pale rose; whorls pyriform; varices pinnated, slightly fluted in the middle, with a single lobe below, elevated above, sharply uncinnated; tubes intermediate, rather short, distinct; canal short, broad.

ANGAS. Proc. Zool. Soc.

Hab. Australia.

Species 15. (Mus. Brit.)

TYPHIS MONTFORTII. *Typ. testâ fusiformi, parvâ, pallidè roseâ; anfractibus pyriformibus; spirâ elevatâ; varicibus laminatis, extantibus, medio angulatim plicatis, supernè acutè uncinnatis; tubis propè varices precedentes locatis, ultimis elongatis; canali angustiùsculo, subrecurvo.*

MONTFORT'S TYPHIS. Shell fusiform, small, pale rose; whorls pyriform; spire elevated; varices laminated, outstanding, angularly plaited in the middle, sharply hooked above; tubes placed near the preceding varices, the last elongated; canal rather narrow, slightly recurved.

A. ADAMS. Ann. and Mag. of Nat. Hist.

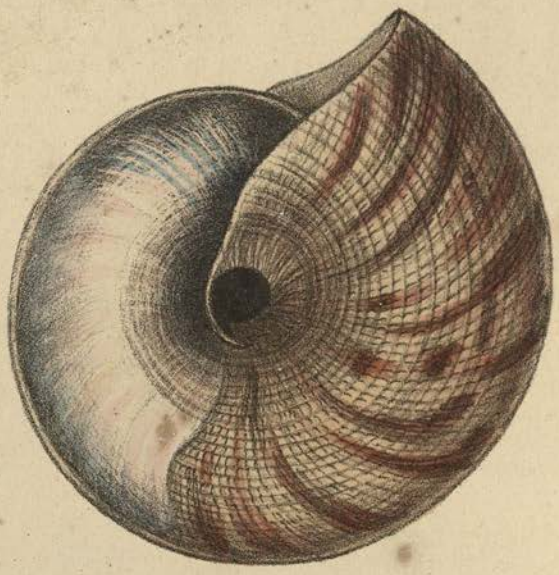
Hab. Japan.

MONOGRAPH

OF THE GENUS

PLEUROTOMARIA.

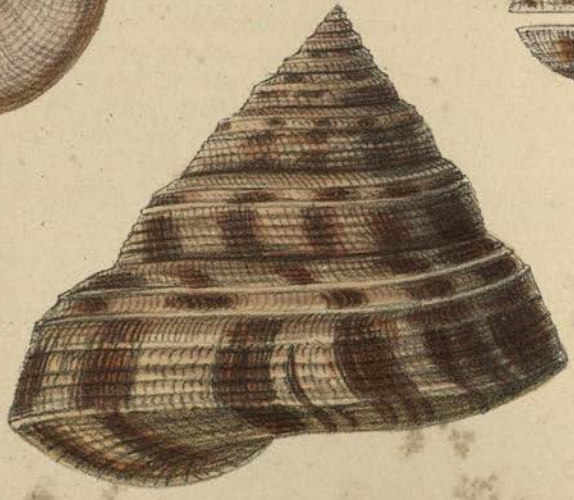
"From some green Eden of the deep,
Where Pleasure's sigh alone is heard."—*Campbell.*



1a

2a

2b



1b

Sowerby del et lith

Vincent Brooks Day & Son lith.

PLEUROTOMARIA.

PLATE I.

Genus PLEUROTOMARIA, *Defrance.*

Testa trochiformi, intùs nacrea, extùs cancellatâ; anfractibus turritis, medio vel supernè canali cicatricæformi, arcuatim striatâ, spiraliter sculptis. Labium externum fissurâ elongatâ incisâ emarginatum.

Shell trochiform, pearly within, cancellated without; whorls turreted, spirally sculptured in the middle or above with a scar-like, curved-striated canal. Outer lip emarginated with an elongated incised fissure.

Two species only of this hitherto-supposed extinct genus are now known. The first was published in the Journal de Conchyliologie, in 1855, from the Island of Marie-Galante. The other is in the collection of M. Crosse, the present conductor of that work, who described it in 1861: both represented by unique specimens. In the later and larger specimen the lip is so broken away that it does not exhibit the fissure, which, however, is inferred by a spiral scar on the upper part of the whorls.

Species 1. (Fig. *a*, *b*, Mus. Crosse.)

PLEUROTOMARIA ADANSONIANA. *Ple. testâ magnâ, trochiformi, umbilico magno perforatâ, infrà convexo-planulatâ, omnino spiraliter liratâ, liris minoribus concentricis decussatâ, pallidè lutescenti, maculis rufis irregularibus pictâ; anfractibus undecim, lentè crescentibus, propè suturam obliquè planulatis tunc angulatis; cicatrice spirali latâ, tenuiter arcuatim striatâ, ad angulum superiorem locato.*

ADANSON'S PLEUROTOMARIA. Shell large, trochiform, perforated with a large umbilicus, flattened-convex below; spirally ridged all over, decussated with smaller ribs; pale yellowish, irregularly painted with irregular red patches; whorls eleven, slowly increasing, obliquely flattened near the suture, then angular; spiral cicatrix broad, with fine curved striæ, placed at the upper angle.

CROSSE AND FISCHER. Journal de Conchyliologie, 1861.

Hab. Marie-Galante.

Species 2. (Fig. *a*, *b*, Mus. De Burgh.)

PLEUROTOMARIA QUOYANA. *Ple. testâ trochiformi, cancellatâ, imperforatâ, corneo-purpurascenti, maculis subquadratis pictâ; spirâ moderatè elevatâ; anfractibus novem, subrotundis; cicatrice spirali profundâ, validè striatâ circà medium locatâ; fissurâ elongatâ.*

QUOY'S PLEUROTOMARIA. Shell trochiform, cancellated, imperforate, purplish-fleshy, painted with square patches; spire moderately raised; whorls nine, rather rounded; spiral cicatrix deep, strongly striated, placed about the middle; fissure elongated.

FISCHER AND BERNARDI. Journal de Conchyliologie, 1855, p. 165.

Hab. —— ?

This species has no umbilicus, its whorls are fewer than in the preceding species, and the cicatrix is in the centre of the whorls, instead of being at the upper part near the angle.

February, 1874.

MONOGRAPH

OF THE GENUS

GALEOMMA.

"All which are made with wondrous wise respect,
And all with admirable beauty deckt."—*Spenser.*

1a

2

3

1 b.c

4

5

6 a.b.

7

8

9 a.b

Sowerby del et lith

Vincent Brooks Day & Son imp

GALEOMMA.

PLATE I.

Genus GALEOMMA, Turton.

Testa æquivalvis, subæquilateralis, transversè ovata, divaricatim granoso-striata, ad marginem ventralem latè hians. Fossula cartilaginifera infrà umbones parva. Impressiones musculares duæ, rotundi. Impressio pallii simplex.

Shell equivalve, subequilateral, transversely ovate, divergently granosely striated, widely gaping at the ventral margin. Cartilaginous pit under the umboes small. Muscular impressions two, rounded. Impression of the mantle simple.

Comparing this genus with *Scintilla*, we find that it differs in having no hinge-teeth, in having a sculptured surface, and always a very wide hiatus at the ventral margin. The type species, *Galeomma Turtoni*, is found in the Channel Islands, as well as on some southern shores of Great Britain; another species is Australian, and all the rest were collected by Mr. Cuming, in the Philippine Islands. The animal attaching itself to rocks by a bysus lies with its valves spread open and their dorsal edge uppermost.

Species 1. (Fig. *a*, *b*, *c*, Mus. Nobis.)

GALEOMMA TURTONI. *Gal. testâ albâ, elongatâ, utrinquè acuminatâ; conspicuè striis elevatis, granosis, irregulariter divergentibus sculptâ; valvis in medio plerumque contractis, latè hiantibus.*

TURTON'S GALEOMMA. Shell white, elongated, acuminated at both ends; conspicuously sculptured with raised granose, irregularly divergent striæ; valves generally contracted in the middle, broadly gaping.

SOWERBY. Genera of Shells.

Hab. Guernsey; Exmouth.

The slight central contraction in the valves seen in some specimens, is not visible in all.

Species 2. (Mus. Brit.)

GALEOMMA PAUCISTRIATA. *Gal. testâ pallidè fulvâ, enuiter striatâ, medio contractâ; terminibus obusis; latere antico paulò longiori, angustiori; latere postico magis inflato.*

THE FEW-STRIATED GALEOMMA. Shell pale fulvous, finely striated, contracted in the middle; ends obtuse; anterior side a little longer, narrower; posterior side more inflated.

DESHAYES. Proc. Zool. Soc., 1855, p. 170.

Hab. Isl. Samar, Philippines.

The sculpture is so fine that it only appears in parts unless closely examined.

Species 3. (Mus. Brit.)

GALEOMMA ANGUSTA. *Gal. testâ albidâ, tenuissimè striatâ; elongatâ, angustâ, terminibus subrotundis; margine ventrali rectiusculo.*

THE NARROW GALEOMMA. Shell whitish, very finely striated; elongated, narrow, ends rather rounded; ventral margin rather straight.

DESHAYES. Proc. Zool. Soc., 1855, p. 170.

Hab. Isl. Bohol, Philippines.

Species 4. (Mus. Brit.)

GALEOMMA FORMOSA. *Gal. testâ aurantiâ, elongatâ, utrinquè acuminatâ, tenuiter striatâ, paulò ante medium contractâ; latere postico longiori magis inflato.*

THE BEAUTIFUL GALEOMMA. Shell orange, elongated, acuminated at each end, finely striated, contracted a little before the middle; posterior side a little longer and more inflated.

DESHAYES. Proc. Zool. Soc., 1855, p. 170.

Hab. Australia.

The form of this species resembles that of the typical one. The colour of the finer striæ distinguishes it.

Species 5. (Mus. Brit.)

GALEOMMA CHLOROLEUCA. *Gal. testâ elongatâ, tenuissimè striatâ, pallidè aurantiâ, medio contractâ; terminibus obtusis, hiatu angustiusculo.*

THE ORANGE-WHITE GALEOMMA. Shell elongated, very finely striated, pale orange, contracted in the middle; ends obtuse, hiatus rather narrow.

DESHAYES. Proc. Zool. Soc., 1855, p. 170.

Hab. Isl. Samar, Philippines.

This shell very nearly resembles *Scintilla ambigua* in general appearance, but on close inspection it is found to be striated, and therefore a *Galeomma.*

Species 6. (Fig. *a*, *b*, Mus. Brit.)

GALEOMMA INFLATA. *Gal. testâ breviusculâ, pallidè fulvâ, tenuiter granoso-striatâ, medio coarctatâ; valvis arcuatis, ad marginem ventralem latissimè hiantibus.*

THE INFLATED GALEOMMA. Shell rather short, pale fulvous, finely granosely striated, contracted in the middle; valves arched, very widely gaping at the ventral margin.

DESHAYES. Proc. Zool. Soc., 1855, p. 170.

Species 7. (Mus. Brit.)

GALEOMMA ARGENTEA. *Gal. testâ parvâ, oblongâ, ferè albâ, tenuiter striatâ, ad terminos subtruncatâ; intùs argenteâ; valvis arcuatis.*

THE SILVERY GALEOMMA. Shell small, oblong, almost white, finely striated, rather truncated at the end; silvery within; valves arched.

DESHAYES. Proc. Zool. Soc., 1855, p. 169.

Hab. Isl. Samar, Philippines.

This species is more finely striated and more truncated at each end than *Galeomma Turtoni.* It has a peculiar silvery lustre inside.

Species 8. (Mus. Brit.)

GALEOMMA INDECORA. *Gal. testâ pallidè fulvâ, oblongâ, tenuissimè striatâ; latere antico breviusculo, obtusè truncato, paulò contracto; latere postico obliquè inflato.*

THE PLAIN GALEOMMA. Shell pale fulvous, oblong, very finely striated; anterior side rather short, obtusely truncated, a little contracted; posterior side obliquely inflated.

DESHAYES. Proc. Zool. Soc., 1855, p. 169.

Hab. Isl. Masbate, Philippines.

But for the very fine striæ that may be seen in parts of this shell, it would seem to belong rather to *Scintilla* than to this genus.

Species 9. (Fig. *a*, *b*, Mus. Brit.)

GALEOMMA MACROCHISMA. *Gal. testâ brevi, pallidè fulvâ, conspicuè granoso-striatâ; latere antico subacuminato; latere postico obtuso; valvis medio coarctatis, arcuatis, latissimè hiantibus.*

THE WIDE-GAPING GALEOMMA. Shell short, pale fulvous, conspicuously granosely striated; anterior side rather acuminated; posterior side obtuse; valves contracted in the middle, arched, very widely gaping.

DESHAYES. Proc. Zool. Soc., 1855, p. 171.

Hab. Isl. Masbate, Philippines.

MONOGRAPH

OF THE GENUS

SCINTILLA.

"Look on the frame
Of this wide universe, and therein read
The endless kind of creatures, which by name
Thou canst not count, much less their nature's aime."—*Spenser.*

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2 b

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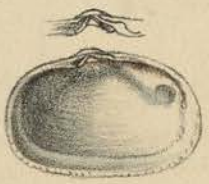

3 b

6

8

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Sowerby del et lith.

Vincent Brooks Day & Son Imp.

SCINTILLA.

PLATE I.

Genus SCINTILLA, *Deshayes.*

Molluscum acephalum, bimusculosum. Testa bivalvis, lævigata, transversim subovata, margine dorsali seu ventrali frequenter hianti, cardo dentibus utrâque valvâ duobus divergentibus postico nonnunquam duplicato; ligamento parvo, lineari, interno. Impressio pallii integra.

Mollusc acephalous, bimuscular, shell bivalve, smooth, transversely subovate, dorsal or ventral margin frequently gaping; hinge with two divergent teeth in each valve, the posterior sometimes divided; ligament small, linear internal; impression of the mantle entire.

The shells of this genus differ from those of *Galeomma*, in having a smooth, sometimes, polished surface. The mantle is reflected over the backs of the valves, as they lie open when living. Few of the *Scintillæ* gape widely as most of the *Galeommæ* do. The greater number of the hitherto recorded species are from the Philippines. Several are from Australia, while Borneo, the Mauritius, and Ceylon add a few to the number.

Species 1. (Mus. Brit.)

SCINTILLA SUCCINEA. *Sci. testâ politâ, subquadratâ, fuscâ, semipellucidâ, clausâ, subæquilaterali; margine ventrali vix convexo.*

THE AMBER SCINTILLA. Shell polished, subquadrate, brown, semipellucid, closed, subequilateral; ventral margin scarcely convex.

DESHAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Isl. Luzon, Philippines.

This rather square shell is closed all round.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA TURGESCENS. *Sci. testâ, albâ, inflatâ, clausâ, oblongo-subquadratâ, subæquilaterali; umbonibus obtusis; margine ventrali rectiùsculo.*

THE SWELLING SCINTILLA. Shell white, inflated, closed, oblong-subquadrate, subequilateral; umbones obtuse; ventral margin rather straight.

DESHAYES. Proc. Zool. Soc., 1855, p. 175.

Hab. Moreton Bay.

Species 3. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA CUMINGII. *Sci. testâ albâ, partim minutissimè granulatâ, opacâ, solidiùsculâ, tumidâ, oblongo-subquadratâ, clausâ, subæquilaterali, latere antico paulò minori, subtruncato; margine ventrali intùs minutè crenulato.*

CUMING'S SCINTILLA. Shell white, in parts very minutely granulated, opaque, rather solid, tumid, oblong-subquadrate, closed, subequilateral, anterior side rather the smaller, slightly truncated; ventral margin minutely crenulated within.

DESHAYES. Proc. Zool. Soc., 1855, p. 173.

Hab. Panama.

Species 4. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA REEVII. *Sci. testâ compressâ, latâ, subtruncatâ, semipellucidâ, margine dorsali utrinquè hianti; posticè declivi, anticè elevato, terminibus latè truncatis.*

REEVE'S SCINTILLA. Shell compressed, broad, subtruncated, semipellucid, dorsal margin gaping on both sides, posteriorly sloped, anteriorly raised; ends broadly truncated.

DESHAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Isl. Negroes, Philippines.

Species 5. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA PHILIPPINENSIS. *Sci. ovatâ, albidâ, compressâ, utrinquè paulò hianti; latere postico breviori, obliquè subtruncato; margine ventrali anticè convexiùsculo.*

THE PHILIPPINE SCINTILLA. Shell ovate, whitish, compressed, a little gaping at each end; posterior side a little the shorter, rather obliquely truncated; ventral margin anteriorly convex.

DESHAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Philippine Islands.

Species 6. (Mus. Brit.)

SCINTILLA CANDIDA. *Sci. testâ lacteâ, ovatâ, clausâ, tumidiùsculâ, obliquâ; latere postico angustiùsculo; margine ventrali anticè convexo.*

THE WHITE SCINTILLA. Shell milk-white, ovate, closed, rather tumid, oblique; posterior side rather narrow, ventral margin anteriorly convex.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Bureas, Philippines.

Species 7. (Mus. Brit.)

SCINTILLA TENUIS. *Sci. testâ ovatâ, lacteâ, clausâ subcompressâ, latere postico breviùsculo, subtruncato; margine ventrali æqualiter convexo.*

THE THIN SCINTILLA. Shell ovate, milk-white, closed, subcompressed, posterior side rather short, subtruncated; ventral margin equally convex.

DESHAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Isl. Sama, Philippines.

More ovate, thinner, and less oblique than *Scintilla candida.*

Species 8. (Fig. *a*, *b*, Mus. —— ? Copied.)

SCINTILLA JUKESII. *Sci. testâ magnâ, subcompressâ, lacteâ, ovato-suboblongâ, concentricè leviter rugatâ, marginibus terminalibus paulò hiantibus, subtruncatis; margine ventrali rectiùsculo.*

JUKES'S SCINTILLA. Shell large, rather compressed, milk-white, ovate, rather oblong, concentrically slightly wrinkled, terminal margins a little gaping, rather truncated; ventral margin rather straight.

DESHAYES. Proc. Zool. Soc., 1855, p. 174.

Hab. Australia.

9 a b

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11

12 a b.

13

14

15 a b.

16

17

18 a b.

Sowerby, del et lith.

Vincent Brooks Day & Son, Imp.

SCINTILLA.

PLATE II.

Species 9. (Mus. Nobis.)

SCINTILLA SEMICLAUSA. *Sci. testâ vividè aurantiâ, breviter oblongâ, tumidâ, utrinquè paulò hianti, medio clausâ; latere postico majusculo, ad terminum obliquè truncato; marginibus dorsali et ventrali rectiùsculis.*

THE HALF-CLOSED SCINTILLA. Shell bright orange, shortly oblong, tumid, a little gaping at both ends, closed in the middle; posterior side a little the larger, truncated obliquely at the end; dorsal and ventral margins rather straight.

SOWERBY. Proc. Zool. Soc., 1870.

Hab. Borneo.

This is one of the prettiest of the species, from its bright orange colour and light texture.

Species 10. (Mus. Brit.)

SCINTILLA PALLIDULA. *Sci. testâ pallidè fulvâ, elongatâ, compressâ; margine ventrali vix hianti, latere antico breviùsculo, terminibus sub-obliquis.*

THE PALE SCINTILLA. Shell pale fulvous, elongated, compressed; ventral margin scarcely gaping, anterior side rather short, ends rather oblique.

DESHAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Isl. Zebu, Philippines.

This species resembles *Scintilla aurantia* in general appearance, but it is nearly or wholly closed at the ventral margin.

Species 11. (Mus. Brit.)

SCINTLLA ROSEA. *Sci. testâ roseâ, politâ, clausâ; latere antico brevi, declivi, subcompresso; latere postico inflato, obliquo.*

THE ROSE SCINTILLA. Shell rose-coloured, polished, closed; anterior side short, sloped, rather compressed; posterior side inflated, oblique.

DESHAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Isl. Luzon, Philippines.

Species 12. (Mus. Brit.)

SCINTILLA HANLEYI. *Sci. testâ latâ, compressâ, pallidissimè fulvâ, hyalinâ; latere postico subrotundo, latere antico breviori, latè subtruncato, marginibus dorsali et terminalibus hiantibus.*

HANLEY'S SCINTILLA. Shell broad, compressed, very pale fulvous, glassy; posterior side rather round, anterior side rather short, broadly subtruncated, dorsal and terminal margins gaping.

SOWERBY. Thesaurus Conchyliorum, Scintilla, Sp. 33, f. 22, 27, 28.

Hab. Singapore.

The valves just touch at the umbones and ventral margin.

Species 13. (Mus. Brit.)

SCINTILLA STRANGEI. *Sci. testâ oblongâ, albâ, clausâ, anticè breviori, subtruncatâ, posticè magis rotundatâ; marginibus ventrali et dorsali rectiùsculis.*

STRANGE'S SCINTILLA. Shell oblong, white, closed, shorter in front, subtruncated; posteriorly more rounded; ventral and dorsal margins rather straight.

DESHAYES. Proc. Zool. Soc., 1855, p. 181.

Hab. Moreton Bay.

Species 14. (Mus. Brit.)

SCINTILLA TIMORENSIS. *Sci. testâ aurantiâ, compressâ, subquadratâ; margine dorsali ad latera*

paulò hianti; margine ventrali clauso, convexiùsculo.

THE TIMOR SCINTILLA. Shell orange, compressed, subquadrate; dorsal margin a little gaping at the sides; ventral margin closed, a little convex.

DESHAYES. Proc. Zool. Soc., 1855, p. 174.

Hab. Timor.

One of the broad scale-like species, which nearly all have the ventral margins closed.

Species 15. (Mus. Brit.)

SCINTILLA CUVIERI. *Sci. testâ aurantiâ, subcirculari, compressâ; margine dorsali utrinquè hianti; latere postico rotundo; latere antico obliquè subtruncato.*

CUVIER'S SCINTILLA. Shell orange, rather circular, compressed; dorsal margin gaping at both ends; posterior side rounded; anterior side obliquely subtruncated.

DESHAYES. Proc. Zool. Soc., 1855, p. 174.

Hab. Isl. Bohol, Philippines.

Differing from the preceding species in its more rounded form.

Species 16. (Mus. Brit.)

SCINTILILA OWENII. *Sci. testâ pallidè fulvâ, clausâ, oblongâ, fasciis opacis concentricis variatâ; latere antico brevi, truncato.*

OWEN'S SCINTILLA. Shell pale fulvous, closed, oblong, varied with opaque concentric bands; anterior side short, truncated.

DESHAYES. Proc. Zool. Soc., 1855, p. 170.

Hab. Isl. Zebu, Philippines.

More straightly oblong and truncated than *Scintilla Borneensis.*

Species 17. (Mus. Brit.)

SCINTILLA PUDICA. *Sci. testâ oblongo-subovatâ, roseâ; latere antico brevi, truncato; margine ventrali paulò hianti, rectiùsculo; latere postico-dorsali leviter declivi.*

THE BLUSHING SCINTILLA. Shell oblong-subovate, rose-coloured; anterior side short, truncated; ventral margin a little gaping, rather straight; postero-dorsal side slightly sloped.

DESHAYES. Proc. Zool. Soc., 1855, p. 178.

Hab. Isl. Zebu, Philippines.

Species 18. (Mus. Nobis.)

SCINTILLA FORBESII. *Sci. testâ fulvo-lutescenti, oblongâ, subovatâ, tumidiùsculâ; latere antico breviùsculo, subtruncato; margine ventrali paulò hianti.*

FORBES'S SCINTILLA. Shell yellowish buff, oblong, subovate, rather tumid; anterior side rather short, subtruncated; ventral margin a little gaping.

DESHAYES. Proc. Zool. Soc., 1855, p. 170.

Hab. Singapore.

More equally tumid and more oval than the Bornean species *Scintilla aurantiaca.*

19 b

19 a

19 c

19 d

20 a. b.

21 a. b.

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Sowerby del et lith.

Vincent Brooks Day & Son imp.

SCINTILLA.

PLATE III.

Species 19. (Fig. *a*, *b*, *c*, *d*, Mus. Nobis.)

SCINTILLA AMBIGUA. *Sci. testâ pallidè aurantiâ seu albâ, tenui, oblongâ, minutissimè punctulatâ, subdiaphanâ, subinflatâ; latere postico longiori, ad terminum subdeclivi, propè marginem ventralem subacuminato; latere antico subtruncato, medio paulò contracto; margine ventrali plus minusvè hianti.*

THE AMBIGUOUS SCINTILLA. Shell pale orange or white, thin, oblong, very minutely punctured, subdiaphanous, subinflated; posterior side rather the longer, rather sloped at the end, slightly acuminated near the ventral margin; anterior side a little truncated, middle a little contracted; ventral margin more or less gaping.

DESHAYES.——?

Scintilla aurantiaca, Sowerby's Thesaurus as of Deshayes.

Species 20. (Mus. Nobis.)

SCINTILLA MAURITIANA. *Sci. testâ elongatâ, vividè aurantiâ, moderatè inflatâ; margine ventrali latè hianti, margine dorsali rectiùsculâ, terminibus subobliquè breviter truncatis.*

THE MAURITIUS SCINTILLA. Shell elongated, bright orange, moderately inflated; ventral margin widely gaping, dorsal margin rather straight, ends rather obliquely shortly truncated.

DESHAYES. Edition of Lamarck's Anim. s. Vert.

Hab. The Mauritius.—Isl. Bourbon.

We think that the shell figured in Sowerby's Thesaurus for this species is only an elongated variety of *Scintilla ambigua*.

Species 21. (Mus. Nobis.)

SCINTILLA APERTA. *Sci. testâ vividè aurantiâ, breviter oblongâ, utrinquè subtruncatâ, concentricè subrugatâ, subæquilaterali; valvulis medio arcuatis; umbonibus tumidis; margine ventrali latissimè hianti.*

THE OPEN SCINTILLA. Shell bright orange, shortly-oblong, rather truncated on each side, concentrically slightly wrinkled, subequilateral; valves arched in the middle; umbones tumid; ventral margin very widely gaping.

SOWERBY.

Hab. The Mauritius.

Much shorter and more truncated than *Scintilla aurantiaca*, with the valves remarkably arched, and a very wide hiatus in the ventral margin.

Species 22. (Mus. Brit.)

SCINTILLA BORNEENSIS. *Sci. testâ albidâ, concentricè substriatâ, ferè clausâ, subinflatâ; latere antico brevi, angustiori, obliquè subtruncato; medio subcontracto.*

THE BORNEAN SCINTILLA. Shell whitish, concentrically substriated, nearly closed, rather inflated; anterior side short, narrower, obliquely subtruncated; slightly contracted in the middle.

DESHAYES.——?

Hab. Borneo.

More inequivalve and oblique than *Scintilla ambigua*, and scarcely if at all gaping.

Species 23. (Mus. Brit.)

SCINTILLA RECLUZIANA. *Sci. testâ roseo-purpurascenti, tenuissimâ, oblongâ, clausâ, medio subcontracto; latere antico truncato.*

RÉCLUZ'S SCINTILLA. Shell rose-purplish, very thin, oblong, closed, slightly contracted in the middle; anterior side truncated.

DESHAYES. Proc. Zool. Soc., 1855, p. 178.

Hab. North Australia.

Species 24. (Mus. Brit.?)

SCINTILLA FLAVIDA. *Sci. testâ tenui, subquadratâ, pallidissimè fulvâ, compressâ, ad marginem dorsalem utrinquè paulò apertâ; altitudine longitudinem ferè æquanti.*

THE YELLOWISH SCINTILLA. Shell thin, subquadrate, very pale fulvous, compressed, a little open at the dorsal margin on both sides; height nearly equalling the length.

DESHAYES. Proc. Zool. Soc., 1855, p. 175.

Hab. Philippines.

Species 25. (Mus. Nobis.)

SCINTILLA ADAMSI. *Sci. testâ pallidè fulvâ, oblongâ, clausâ, inæquilaterali, moderatè inflatâ; latere antico brevi, angusto, truncato; margine ventrali rectiùsculo.*

ADAMS'S SCINTILLA. Shell pale fulvous, oblong, closed, inequilateral, moderately inflated; anterior side short, narrow, truncated; ventral margin rather straight.

DESHAYES. Proc. Zool. Soc., 1855, p. 179.

Hab. Isl. Bohol, Philippines.

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Sowerby, del et lith

Vincent, Brooks Day & Son Imp

SCINTILLA.

PLATE IV.

Species 26. (Fig. *a*, *b*. Mus. —— ?)

SCINTILLA SPLENDIDA., *Sci. testâ lacteâ, politissimâ, tenui, oblongâ, compressâ, valdè inæquilaterali; latere antico brevi, truncato; latere postico truncato; margine ventrali recto, moderatè hianti.*

THE SPLENDID SCINTILLA. Shell milky-white, brightly polished, thin, oblong, compressed, very inequilateral; anterior side short, truncated; posterior side truncated; ventral margin moderately gaping.

DESHAYES. —— ?

Hab. —— ?

This shell is deeper than *Scintilla Layardi*, more truncated and less gaping in front.

Species 27. (Mus. Nobis.)

SCINTILLA INCERTA. *Sci. testâ albâ, clausâ, solidâ, tumidâ, striis transversis longitudinalibusque granosis decussatâ; latere antico breviusculo, angustiusculo; latere postico magis inflato, medio subdepresso.*

THE DOUBTFUL SCINTILLA. Shell white, closed, solid, tumid, decussated with transverse and longitudinal granulated striæ; anterior side rather short, rather narrow; posterior side more inflated, slightly depressed in the middle.

DESHAYES. Conchyliologie de l'Ile de la Réunion.

Hab. Isl. Bourbon.

Species 28. (Mus. Nobis.)

SCINTILLA OBLONGA. *Sci. pallidè fulvâ, tenui, semipellucidâ, compressâ, breviter oblongâ, medio clausâ, utrinquè hianti; margine ventrali rectiusculo.*

THE OBLONG SCINTILLA. Shell pale fulvous, thin, semipellucid, compressed, shortly oblong, closed in the middle, gaping at each end; ventral margin rather straight.

SOWERBY. Proc Zool. Soc., 1870.

Hab. Borneo.

Species 29. (Mus. Brit.)

SCINTILLA FABA. *Sci. testâ lacteâ, inflatâ, oblongo-ovatâ, clausâ; latere antico obliquè subtruncato; latere postico obliquè magis inflato.*

THE BEAN SCINTILLA. Shell milk-white, inflated, oblong-ovate, closed; anterior side obliquely subtruncated; posterior side more inflated obliquely.

DESHAYES. Edition of Lamarck's Anim. s. Vert.

Hab. Borneo.

Species 30. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA HYALINA. *Sci. testâ compressâ, ovatâ, diaphanâ, pallidâ, subæquilaterali; margine dorsali utrinquè valdè hianti; margine ventrali medio clauso.*

THE HYALINE SCINTILLA. Shell compressed, ovate, diaphanous, pale, subequilateral; dorsal margin gaping at both ends; ventral margin closed in the middle.

DESHAYES. Proc. Zool. Soc., 1855, p. 180.

Hab. Torres Straits.

In the open end and transparent texture resembling *Scintilla Hanleyi*, but differing in the oval form.

Species 31. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA LAYARDI. *Sci. testâ tenui, albâ, semipellucidâ, angustâ, elongatâ, medio subinflatâ; margine ventrali latè aperto; terminibus subrotundis.*

LAYARD'S SCINTILLA. Shell thin, white, semipellucid, narrow, elongated, middle a little inflated; ventral margin widely gaping; ends rather rounded.

DESHAYES. —— ?

Hab. Ceylon.

This little open species is like a *Galeomma* in all but the structure of the surface.

Species 32. (Mus. Brit.)

SCINTILLA POLITA. *Sci. testâ albâ, nitenti, semipellucidâ, compressâ, concentricè rugatâ, oblongâ, utrinquè truncatâ; latere antico breviori; margine ventrali paulò hianti.*

THE POLISHED SCINTILLA. Shell white, shining, semipellucid, compressed, concentrically wrinkled, oblong, truncated at each end; anterior side shorter; ventral margin a little gaping.

DESHAYES. —— ?

Hab. Isl. Samar, Philippines.

Species 33. (Mus. Brit.)

SCINTILLA PORULOSA. *Sci. testâ pallidissimè roseâ, minutissimè punctulatâ, compressâ, elongatâ, medio subdepressâ, concentricè obscurè rugatâ, marginibus clausis.*

THE POROUS SCINTILLA. Shell very pale rose, very minutely punctured; compressed, elongated; middle rather depressed, concentrically obscurely wrinkled; margins closed.

DESHAYES. Proc. Zool. Soc., 1855, p. 180.

Hab. Isl. of Bohol.

Species 34. (Mus. Brit.)

SCINTILLA OBLIQUA. *Sci. testâ obliquè oblongâ, fuscâ, clausâ, valdè inæquilaterali; latere antico brevissimo, truncato; latere postico subinflato; marginibus dorsali et ventrali rectiùsculis.*

THE OBLIQUE SCINTILLA. Shell obliquely oblong, brown, closed, very inequilateral; anterior side very short, truncated; posterior side rather inflated, dorsal and ventral margins rather straight.

SOWERBY. Thesaurus Conchyliorum. Scintilla, species 32, fig. 35.

Hab. Ecuador.

Species 35. (Mus. —— ? Copied.)

SCINTILLA DECLIVIS. *Sci. testâ semipellucidâ, parvâ, pallidè fulvâ, intùs fuscâ, clausâ; valdè inæquilaterali; latere antico brevi; margine dorsali utrinquè declivi.*

THE SLOPED SCINTILLA. Shell semipellucid, small, pale fulvous, brown within, closed, very inequilateral; anterior side short; dorsal margin sloped at each side.

SOWERBY. Thesaurus Conchyliorum, Scintilla, sp. 31, fig. 30.

Hab. —— ?

This little species is very oblique, and being half transparent, shows through to the outer surface the slight purplish colour of the inside.

36

37 a.b.

38 a.b

39 a.b.

40

41

42 a.

43

44

42 b.

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

SCINTILLA.

PLATE V.

Species 36. (Mus. ——?)

SCINTILLA LACTEA. *Sci. testâ oblongâ, obliquâ, albâ, inæquilaterali, semipellucidâ, clausâ; latere antico brevi, subtruncato; margine dorsali utrinquè declivi; latere postico subobliquo; margine ventrali convexi sculo.*

THE MILK-WHITE SCINTILLA. Shell oblong, oblique, white, inequilateral, semipellucid, closed; anterior side short, subtruncated; dorsal margin sloped on both sides, posterior side rather oblique; ventral margin rather convex.

SOWERBY. Proc. Zool. Soc., 1865.

Hab. ——?

More oblong and less sloped than *Scintilla declivis*.

Species 37. (Fig. *a*, *b*.)

SCINTILLA ANOMALA. *Sci. testâ albâ, pellucidâ, compressâ, subquadratâ; marginibus dorsalibus utrinquè paulò hiantibus.*

THE ANOMALOUS SCINTILLA Shell white, pellucid, compressed, subquadrate; with dorsal margins a little gaping at both ends.

DESHAYES. Proc. Zool. Soc., 1855, p. 181.

Hab. Isl. Samar, Philippines.

Much resembling the scales of a fish.

Species 38. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA HYDATINA. *Sci. testâ corneâ, pellucidâ, compressâ, subquadratâ; marginibus terminalibus utrinquè hiantibus; umbonibus subcentralibus; margine ventrali rectiùsculo.*

THE TRANSPARENT SCINTILLA. Shell pellucid, compressed, subquadrate; terminal margins gaping on both sides; umbones subcentral; ventral margin rather straight.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Bohol, Philippines.

Species 39. (Fig. *a*, *b*, Mus. Nobis.)

SCINTILLA MEMBRANACEA. *Sci. testâ tenuissimâ, corneâ, pellucidâ, oblongâ, utrinquè subtruncatâ; margine dorsali utrinquè hianti; margine ventrali clauso, rectiùsculo.*

THE MEMBRANACEOUS SCINTILLA. Shell very thin, horny, pellucid, oblong, slightly truncated on each side; dorsal margin gaping at both ends; ventral margin closed, rather straight.

SOWERBY.

Hab. ——?

A remarkably thin transparent shell.

Species 40. (Mus. Brit.)

SCINTILLA STRIATINA. *Sci. testâ albâ, parvâ, tenuissimâ, pellucidâ, compressâ, clausâ, subæquilaterali, concentricè rugis tenuissimis striatâ, lateribus declivibus; margine dorsali breviùsculo; margine ventrali rectiùsculo.*

THE STRIATED SCINTILLA. Shell white, small, very thin, pellucid, compressed, closed; rather equilateral, concentrically striated with very thin wrinkles; sides sloped, dorsal margin rather short; ventral margin rather straight.

DESHAYES. Proc. Zool. Soc., 1855, p. 176.

Hab. Isl. Bohol, Philippines.

Species 41. (Mus. Brit.)

SCINTILLA OPALINA. *Sci. testâ obliquè subovatâ, subcompressâ, clausâ, semipellucidâ, albâ; marginibus dorsalibus declivibus.*

THE OPAL SCINTILLA. Shell obliquely subovate, subcompressed, closed, semipellucid, white, dorsal margins sloped.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Luzon, Philippines.

More tumid than *Sc. striatina* and not wrinkled or striated.

Species 42. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA TURGIDA. *Sci. testâ, tenui, albâ, inflatâ; latere antico brevi, angustiori, truncato; latere postico obliquè inflato, rotundo, margine dorsali elevato; margine postico-dorsali vix aperto; margine ventrali medio inflato, anticè contracto.*

THE TURGID SCINTILLA. Shell thin, white, inflated; anterior side short, narrower, truncated, posterior side obliquely inflated, rounded, dorsal margin elevated; posterior dorsal margin very little open; ventral margin inflated in the middle, contracted in front.

DESHAYES. Proc. Zool. Soc., 1855, p. 175.

Hab. Isl. Samar, Philippines.

Species 43. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA SCINTILLANS. *Sci. testâ nitenti, medio subcæruleo, subpellucidâ, versùs marginem fulvidâ, opacâ, clausâ, oblongo-subquadratâ; latere antico breviori, marginibus dorsalibus declivibus.*

THE BRIGHT SCINTILLA. Shell shining, subpellucid in the middle, fulvous, opaque towards the margin, closed, subquadrate; anterior side shorter; dorsal margins sloped.

DESHAYES. Proc. Zool. Soc., 1855, p. 175.

Hab. Isl. Bohol, Philippines.

Species 44. (Mus. Brit.)

SCINTILLA OVULINA. *Sci. testâ, oblongo-subquadratâ, tumidissimâ, nitenti, clausâ, partim semipellucidâ, luteâ; marginibus lateralibus declivibus, margine ventrali rectiùsculo.*

THE OVAL SCINTILLA. Shell oblong-subquadrate, rather tumid, shining, closed, partly semipellucid, yellowish; lateral margins sloped, ventral margin rather straight.

DESHAYES. Proc. Zool Soc., 1855, p. 174.

Hab. Isl. Samar, Philippines.

In structure this shell and the next are opaque and pellucid in bands.

46 a.b.

45 a.b

47 a.b

48

49

50

51

52 a.b

54

53

SCINTILLA.

PLATE VI.

Species 45. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA SOLIDULA. *Sci. testâ oblongo-subquadratâ, pallidè fulvâ, solidiùsculâ, tumidâ, clausâ; umbonibus magnis, margine ventrali recto; marginibus lateralibus obliquè truncatis.*

THE SOLID SCINTILLA. Shell oblong-subquadrate, pale fulvous, rather solid, tumid, closed; umboes large, ventral margin straight; lateral margins obliquely truncated.

DESHAYES. Proc. Zool. Soc., 1855, p. 174.

Hab. Isl. Bohol, Philippines.

Species 46. (Mus. Taylor.)

SCINTILLA PURPURASCENS. *Sci. testâ ovatâ, compressâ, roseo-purpureâ; latere antico breviori, obliquè truncato; margine ventrali convexiùsculo, paulò hianti.*

THE PURPLISH SCINTILLA. Shell ovate, compressed, rose-purple; anterior side shorter, obliquely truncated; ventral margin rather convex, a little gaping.

SOWERBY.

Scintilla rosea, Sowerby, Proc. Zool., 1865.

Hab. —— ?

The name *Sc. rosea*, given to the species inadvertently in the Proceedings of the Zoological Society, and *Sc. rosea* of Deshayes, Thes. Conch. sp. 9, are quite distinct.

Species 47. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA PISUM. *Sci. testâ parvâ, aurantiâ, tumidâ, obliquâ, clausâ; latere antico angusto, subtruncato; latere postico valdè inflato.*

THE PEA SCINTILLA. Shell small, rather orange, tumid, oblique, closed; anterior side narrow, rather truncated; posterior side much inflated.

SOWERBY. Thesaurus Conchyliorum, sp. 27.

Hab. Mauritius.

Species 48. (Mus. Brit.)

SCINTILLA HYDROPHANA. *Sci. testâ semipellucidâ, pallidè fulvâ, compressâ, oblongo-subquadratâ; margine dorsali utrinquè paulò aperto.*

THE HYDROPHANE SCINTILLA. Shell semipellucid, pale fulvous, compressed, oblong-subquadrate; dorsal margin a little open at each end.

DESHAYES. Proc. Zool. Soc., 1855, p. 178.

Hab. Isl. Luzon, Philippines.

Of a more oblong form than *Scintilla hydiana*.

Species 49. (Mus. Brit.)

SCINTILLA CROCEA. *Sci. testâ subquadratâ, subcompressâ, aurantiâ; marginibus terminalibus obtusè truncatis; margine ventrali clauso, rectiùsculo; margine dorsali utrinquè paulò aperto.*

THE YELLOW SCINTILLA. Shell subquadrate, subcompressed, orange; terminal margins obtusely truncated; ventral margin closed, rather straight; dorsal margin a little open at both ends.

DESHAYES. Proc. Zool. Soc., 1855, p. 175.

Hab. Isl. Negroes, Philippines.

Species 50. (Mus. Brit.)

SCINTILLA SQUAMA. *Sci. testâ compressâ, lacteâ, semipellucidâ, concentricè leviter undulatim rugatâ, subquadratâ; latere postico obliquè paulò producto; terminis apertis.*

THE SCALE SCINTILLA. Shell compressed, milk-white, semipellucid, with slight concentric wave-like ridges, rather square; posterior side a little obliquely produced; ends open.

SOWERBY. Thesaurus Conchyliorum, sp. 46.

Hab. Isl. Ticao, Philippines.

This pretty scale-like species is easily distinguished.

Species 51. (Mus. Brit.)

SCINTILLA CHRYSTALLINA. *Sci. testâ parvâ, fulvâ, pellucidâ, subovato-rotundâ, valdè compressâ; margine dorsali utrinquè hianti.*

THE CHRYSTALLINE SCINTILLA. Shell small, fulvous, pellucid, subovately rounded, very compressed; dorsal margin gaping at both ends.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Mindinao, Philippines.

The smallest, and one of the most hyaline of all the species.

Species 52. (Fig. *a*, *b*, Mus. Brit.)

SCINTILLA PELLICULA. *Sci. testâ parvâ, lacteâ, subrotundâ, compressâ, pellucidâ, concentricè undulatim rugatâ; terminis apertis; latere antico breviùsculo, subtruncato; latere postico obliquè paulò producto.*

THE PELLICLE SCINTILLA. Shell small, milk-white, rather round, compressed, pellucid, concentrically undulately wrinkled; ends open; anterior side rather short, rather truncated; posterior side a little obliquely produced.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Bohol, Philippines.

A smaller and more rounded shell than *Scintilla squama*, with more large and conspicuous wrinkles.

Species 53. (Mus. Brit.)

SCINTILLA VITRÆA. *Sci. testâ ovato-subquadratâ, pallidè fulvâ, tenuissimâ, compressâ, fasciis subopacis; ferè clausâ; terminis obliquè truncatis; margine dorsali recto; umbonibus acutis.*

THE GLASSY SCINTILLA. Shell ovately-subquadrate, pale fulvous, very thin, compressed, with rather opaque bands; almost closed; ends obliquely truncated; dorsal margin straight, umboes sharp.

DESHAYES. Proc. Zool. Soc., 1855, p. 177.

Hab. Isl. Bureas, Philippines.

Species 54. (Mus. Nobis.)

SCINTILLA OPACA. *Sci. testâ subovatâ, nitenti, stramineâ, opacâ, clausâ; latere antico subtruncato; margine ventrali rectiùsculo.*

THE OPAQUE SCINTILLA. Shell subovate, shining, straw-coloured, opaque, closed; anterior side rather truncated; ventral margin rather straight.

SOWERBY.

Hab. —— ?

Although brilliantly polished, this little shell is opaque.

SCINTILLA.

	Plate.	Species.
Adamsi, *Deshayes*	III.	25
ambigua, *Deshayes*	III.	19
anomala, *Deshayes*	V.	37
aperta, *Sowerby*	III.	21
aurantiaca, *Deshayes*	III.	20
Borneensis, *Deshayes*	III.	22
candida, *Deshayes*	I.	6
chrystallina, *Deshayes*	VI.	51
crocea, *Deshayes*	VI.	49
Cumingii, *Deshayes*	I.	3
Cuvieri, *Deshayes*	II.	15
declivis, *Sowerby*	IV.	35
faba, *Deshayes*	IV.	29
flavida, *Deshayes*	III.	24
Forbesii, *Deshayes*	II.	18
Hanleyi, *Sowerby*	II.	12
hyalina, *Deshayes*	IV.	30
hydatina, *Deshayes*	V.	38
hydrophana, *Deshayes*	VI.	48
incerta, *Deshayes*	IV.	27
Jukesii, *Deshayes*	I.	8
lactea, *Sowerby*	V.	36
Layardi, *Deshayes*	IV.	31
membranacea, *Sowerby*	V.	39
obliqua, *Sowerby*	IV.	34
oblonga, *Sowerby*	IV.	28
opaca, *Sowerby*	VI.	54
opalina, *Deshayes*	V.	41
ovulina, *Deshayes*	V.	44
Owenii, *Deshayes*	II.	16
pallidula, *Deshayes*	II.	10
pellicula, *Deshayes*	VI.	52
Philippinensis, *Deshayes*	I.	5
pisum, *Sowerby*	VI.	47
polita, *Deshayes*	IV.	32
porulosa, *Deshayes*	IV.	33
pudica, *Deshayes*	II.	17
purpurascens, *Sowerby*	VI.	46
Recluziana, *Deshayes*	III.	23
Reevii, *Deshayes*	I.	4
rosea, *Deshayes*	II.	11
rosea, Sowerby	VI.	46
scintillans, *Deshayes*	V.	43
semiclausa, *Sowerby*	II.	9
solidula, *Deshayes*	VI.	45
splendida, *Deshayes*	IV.	26
squama, *Sowerby*	VI.	50
Strangei, *Deshayes*	II.	13
striatina, *Deshayes*	V.	40
succinea, *Deshayes*	I.	1
tenuis, *Deshayes*	I.	7
Timorensis, *Deshayes*	II.	14
turgescens, *Deshayes*	I.	2
turgida, *Deshayes*	V.	42
vitræa, *Deshayes*	VI.	53

MONOGRAPH

OF THE GENUS

STOMATELLA.

"A thing of beauty is a joy for ever."—*Keats.*

1

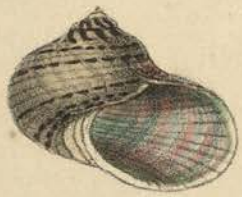
2a

2b

3a

4a

4b



3b

5a

5b

6

Sowerby del. et lith.

Vincent Brooks Day & Son Imp.

STOMATELLA.

PLATE I.

Genus STOMATELLA, *Lamarck.*

Testa plus minusve auriformi, spira parva, ultimo anfractu magno, spiraliter costata; apertura magna, obliquè elongata, nacrea, iridescens.

Operculum orbiculare, tenue, corneum, multispirale.

Shell more or less auriform, with small spire and large body whorl, spirally ribbed; aperture large, obliquely elongated, pearly, iridescent.

Operculum orbicular, thin, horny, many-whorled.

It is a question of convenience whether this genus should or should not include the shells separated under the name of STOMATIA. The differences in the shells of the two genera are not great, consisting mainly in the present genus not being wrinkled at the suture, like the *Stomatiæ*, and not having prominent spiral tubercular keels. The presence of an operculum in *Stomatella* and its absence in *Stomatia*, would, if it could be established, be a very important distinction. The typical species is from Torres Straits, and two or three are Australian, but a very large proportion of the remaining species find their habitats among the Philippines.

Species 1. (Mus. Brit.)

STOMATELLA FULGURANS. *Sto. testâ suborbiculari, subdepressâ, fulvâ, lineis obliquis fusco-grisescentibus ornatâ; spirâ acuminatâ; anfractibus tenuiter liratis; ultimo anfractu subperforato.*

THE LIGHTNING STOMATELLA. Shell suborbicular, subdepressed, fulvous, ornamented with oblique brownish-grey lines; spire acuminated; whorls finely ridged; last whorl partly perforated.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Negroes, Phillipines.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA SANGUINEA. *Sto. testâ depressâ, ovatâ, crassâ, rubrâ; costis moniliformibus distantibus ornatâ; spirâ subacuminatâ, anfractibus rotundis; aperturâ latâ; labio interno lato, albo, obliquo, valdè arcuato.*

THE BLOOD-COLOURED STOMATELLA. Shell depressed, ovate, thick, red; ornamented with distant beaded ribs; spire subacuminated, whorls rounded; aperture broad; inner lip broad, white, oblique, much arched.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Ticoa, Philippines.

There is no difficulty in recognising this neat little coral-like species.

Species 3. (Fig. *a*, *b*, Mus. Nobis.)

STOMATELLA PAPYRACEA. *Sto. testâ lævigatâ, subglobosâ, tenui, cinereâ, fulvâ vel rubrâ, fusco aut nigro maculatâ; spiraliter costis lævigatis, fusco articulatis haud prominentè liratâ; spirâ acuminatâ; aperturâ ovatâ; columellâ albâ, planulatâ, perobliquâ.*

THE PAPYRACEOUS STOMATELLA. Shell smooth, subglobose, thin, ash-coloured, brown or red, spotted with brown or black; spirally ridged, not prominently, with smooth, brown-spotted ribs; spire acuminated; aperture ovate; columella white, flattened, very oblique.

CHEMNITZ. Conchylien Cabinet, Pl. 182, f. 1817, 1818.

Stomatella tumida, Gould.

Hab. Australia.

Differing from all the rest in the smoothness and slightness of its structure.

Species 4. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA HALIOTOIDEA. *Sto. testâ depressâ, obliquè subauriformi, tenui, fusco, rufo-alboque variè pictâ; spirâ acuminatâ, anfractibus planiùsculis, spiraliter costatis; aperturâ latâ.*

THE HALIOTIS STOMATELLA. Shell depressed, obliquely rather auriform, thin, variously painted with

brown, red, and white; spire acuminated, whorls rather flat, spirally ribbed; aperture wide.

SOWERBY. Genera of Shells.

Hab. Philippines.

Species 5. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA MACULATA. *Sto. testâ depressâ, obliquè ovatâ, spiraliter costis moniliformibus liratâ; fusco vel rubro variegatâ; apice subelevato, anfractibus convexis, ultimo lato; aperturâ obliquè ovatâ.*

THE SPOTTED STOMATELLA. Shell depressed, obliquely ovate, spirally ridged with beaded ribs; varied with brown or red; apex rather elevated, whorls convex, last wide; aperture obliquely ovate.

QUOY. Voy. de l'Astrolabe, t. iv. p. 315.

Hab. Isl. Vanikoro.

Species 6. (Mus. Brit.)

STOMATELLA JAPONICA. *Sto. testâ suborbiculari, subdepressâ, fulvo-rubescenti, spiraliter costis lævibus, confertis, nodulosis liratâ; spirâ elevatâ; ultimo anfractu inflato; aperturâ suborbiculari.*

THE JAPAN STOMATELLA. Shell suborbicular, subdepressed, reddish-brown, spirally ridged with smooth, close, nodulous ribs; spire elevated; last whorl inflated; aperture suborbicular.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Japan.

This species bears some resemblance to *Stomatella Malukana* in form.

7

8

9

10 a

11 a

11 b

10 b

12 a

12 b

12 c

Sowerby. del et lith.

Vincent Brooks Day & Son Imp

STOMATELLA.

PLATE II.

Species 7. (Mus. Brit.)

STOMATELLA MONILIFERA. *Sto. testâ suborbiculari, pallidè fulvâ, fusco-rubescenti punctatâ, costellis validis, moniliferis liratâ, interstitiis striatis; aperturâ obliquâ, subcirculari.*

THE BEADED STOMATELLA. Shell suborbicular, pale fulvous, spotted with reddish-brown, ridged with strong, beaded ribs; interstices striated; aperture oblique, subcircular.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. —— ?

The locality of this pretty little shell has not been ascertained.

Species 8. (Fig. *a*, Mus. Brit.)

STOMATELLA CANDIDA. *Sto. testâ albâ, depressâ, spiraliter acutè carinatâ; carinis parvis, confertis, numerosis, subcrenatis, angulatis, elevatis, interstitiis concentricè tenuissimè striatis; spirâ subdepressâ; anfractibus rotundis; aperturâ obliquâ, suborbiculari.*

THE WHITE STOMATELLA. Shell white, depressed, spirally sharply keeled; keels small, close, numerous, a little crenated, angular, raised, interstices concentrically very finely striated; spire rather depressed, with rounded whorls; aperture oblique, suborbicular.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Korean Archipelago.

This species was taken by Mr. Arthur Adams on coral reefs.

Species 9. (Mus. Brit.)

STOMATELLA SPECIOSA. *Sto. testâ trochiformi, albâ, rubro maculatâ, spiraliter carinatâ, concentricè striatâ; carinis tribus principalibus obtusis, prominentibus, interstitialibus minutis; spirâ conicâ, anfractibus tricarinatis.*

THE SPECIÓUS STOMATELLA. Shell trochiform, white, spotted with red, spirally keeled, concentrically striated; three principal keels obtuse, prominent, interstitial ones minute; spire conical, whorls tricarinate.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Grimwood's Island.

The arrangement of the red spots between the keels, gives great beauty to this shell.

Species 10. (Fig. *a*, *b*, Mus. Nobis.)

STOMATELLA IMBRICATA. *Sto. testâ depresso-orbiculari, scâbrâ, griseâ, fusco-punctatâ; costis transversis numerosis, confertis, imbricato-squamosis liratâ; spirâ parvâ, anfractibus duobus, convexis; aperturâ maximâ.*

THE IMBRICATED STOMATELLA. Shell depressed-orbicular, scabrous, grey, brown-spotted; ridged with numerous close ribs, with imbricated scales; spire small, whorls two, convex; aperture very large.

LAMARCK. Encyclopédie Méthodique.

Hab. Torres Straits.

Species 11. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA SULCIFERA. *Sto. testâ obliquè oblongo-ovatâ, tenuiùsculâ, spiraliter costis scabriùsculis liratâ, griseo-rubescenti, maculis strigisque variegatâ, concentricè minutè striatâ; aperturâ maximâ, obliquè oblongâ.*

THE GROOVED STOMATELLA. Shell obliquely oblong-ovate, rather thin, spirally ridged with rather scabrous ribs, reddish-grey, varied with spots and stripes, concentrically minutely striated; aperture very large, obliquely oblong.

LAMARCK. Encyclopédie Méthodique.

Hab. Isl. Ticao, Isl. Samar, Philippines.

Taken at low water from the coral reefs fringing the Islands.

Species 12. (Fig. *a*, *b*, *c*, Mus. Brit.)

STOMATELLA NOTATA. *Sto. testâ suborbiculari-depressâ, pallidè roseâ, maculis purpureis distinctis, seriatim ornatâ; spiraliter costatâ, concentricè perobliquè striatâ; spirâ productâ, acuminatâ; aperturâ suborbiculari.*

THE MARKED STOMATELLA. Shell suborbicular, depressed, pale pink, ornamented with distinct purple spots in rows; spirally ribbed, concentrically very obliquely striated; spire produced, acuminated; aperture suborbicular.

A. ADAMS (Stomatia). Proc. Zool. Soc., 1850.

Hab. Philippines.

It may be doubtful whether the varieties (figs. *b* and *c*) really belong to this species.

13 a.

14 a.

14 b.

13 b.

15 a.

15 b.

16.

17.

18.

19.

Sowerby del et lith.

Vincent Brooks Day & Son. Imp

STOMATELLA.

PLATE III.

Species 13. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA CANCELLATA. *Sto. testâ suborbiculari, convexâ, umbilicatâ, subcinereâ, fasciis fumoso-fuscis, irregularibus, undatis, concentricè pictâ; costellis spiralibus obtusis, inæqualibus, striisque concentricis cancellatâ; spirâ prominenti, apice acuto; aperturâ subrotundâ, margine columellari paulò reflexo, medio rectiusculo; umbilico costâ spirali marginato.*

THE CANCELLATED STOMATELLA. Shell suborbicular, convex, umbilicated, rather ashy, concentrically painted with irregular, undulated, smoky brown bands; cancellated with spiral, obtuse, unequal ribs and concentric striæ; spire prominent, apex sharp; aperture rather round, columellar margin a little reflected, rather straight in the middle; umbilicus bordered with a spiral rib.

KRAUSS. Südafrikan Mollusken.

Hab. Table Bay, Cape of Good Hope.

Species 14. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA ARABICA. *Sto. testâ suborbiculari, umbilicatâ, acuminatâ, albidâ, flammulis vel maculis rubris pictâ; spirâ productâ; anfractibus costellis paucis validis, striisque interstitialibus liratis; regione umbilicati impresso; labio interno reflexo, tenui.*

THE ARABIAN STOMATELLA. Shell suborbicular, umbilicated, acuminated, white, painted with red flames or spots; spire produced; whorls ridged with few strong ribs, and interstitial striæ; umbilical area impressed; inner lip reflected, thin.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stom. Sp. 13, figs. 27, 28.

Hab. Red Sea.

Species 15. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA SPLENDIDULA. *Sto. testâ imperforatâ, subdepressâ, suborbiculari, tenui, rubrâ, ad suturam et infrà medium flammulis rubris subconcentricis pictâ; liris asperulatis inæqualibus et striis spiralibus ornatâ; aperturâ transversè oblongâ, haliotoideâ.*

THE SPLENDID STOMATELLA. Shell imperforate, rather depressed, suborbicular, thin, red, painted at the suture and below the middle with red subconcentric flames; ornamented with roughened, unequal spiral ribs and striæ; aperture transversely oblong, haliotis-shaped.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stom. Sp. 18 a, figs. 15, 16.

Hab. ——?

The locality of this beautiful species is unknown.

Species 16. (Mus. Brit.)

STOMATELLA BACONI. *Sto. testâ suborbiculari, solidâ, imperforatâ, spiraliter striatâ, pallidè fulvâ, fusco fasciatim variegatâ; spirâ acuminatâ, anfractibus rotundis, aperturâ obliquè ovatâ.*

BACON'S STOMATELLA. Shell suborbicular, solid, imperforate, spirally striated, pale fulvous, varied with brown in bands; spire acuminated, whorls rounded, aperture obliquely ovate.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stom. Sp. 10, figs. 25, 26.

Hab. Swan River.

Species 17. (Mus. Brit.)

STOMATELLA MARGARITANA. *Sto. testâ suborbiculari, rubrâ, costis subnodosis, rotundis, inæqualibus liratâ, spirâ elevatâ, acuminatâ; anfractibus rotundis, distinctis; aperturâ subrotundâ; umbilico callo obtecto.*

THE MARGARITA STOMATELLA. Shell suborbicular, red, ridged with rather nodose, rounded, unequal ribs, spire elevated, acuminated; whorls rounded,

distinct; aperture nearly round; umbilicus covered by a callus.

A. Adams. Proc. Zool. Soc., 1850.

Hab. Australia.

The name refers to a resemblance in form between this little shell and those of the genus *Margarita*.

Species 18. (Mus. Brit.)

Stomatella tigrina. *Sto. testâ subtrochiformi, perforatâ, albidâ, lineis rubris, obliquè subconcentricis strigatâ; spirâ conicâ, anfractibus angulatis, bicarinatis, inter carinas spiraliter striatis; aperturâ suborbiculari, labio interno reflexo, calloso; umbilico distincto, partim obtecto.*

The little tiger Stomatella. Shell somewhat trochiform, perforated, whitish, striped with red, obliquely concentric lines; spire conical, whorls angular, bicarinated, spirally striated between the keels; aperture suborbicular, inner lip reflected, callous; umbilicus distinct, partly covered.

A. Adams. Proc. Zool. Soc., 1850.

Hab. —— ?

Species 19. (Mus. Brit.)

Stomatella pallida. *Sto. testâ suborbiculari, albidâ, lineis undulatis pallidè fulvis ornatâ; spiraliter costellis inæqualibus liratâ; spirâ elevatâ, acuminatâ, anfractibus angulatis; labio interno calloso.*

The pale Stomatella. Shell suborbicular, whitish, ornamented with pale fulvous undulating lines; spirally ridged with unequal ribs; spire elevated, acuminated, whorls angular; inner lip callous.

A. Adams (Stomatia). Proc. Zool. Soc., 1850.

Hab. Lord Hood's Island.

A much more elevated shell than *Stomatella tigrina*.

20

8 b

21

22

23 a

23 b

24

25 a

25 b

a *b*

26

Sowerby, del et lith.

Vincent Brooks Day & Son, Imp.

STOMATELLA.

PLATE IV.

Fig. 8 *b* is a variety of *Stomatella candida*, in which some faint flames of colour are visible.

Species 20. (Mus. Brit.)

STOMATELLA SCITULA. *Sto. testâ parvâ, depressâ, haliotoideâ, pallidissimè roseâ, rubro punctatâ, costellis numerosis liratâ; aperturâ magnâ, labio interno albo, acuto, obliquè arcuato.*

THE TRIM STOMATELLA. Shell small, depressed, haliotis-shaped, very pale rose, spotted with red; ridged with numerous ribs; aperture large, inner lip white, sharp, obliquely arched.

H. ADAMS. Proc. Zool. Soc., 1872.

Hab. Red Sea.

Species 21. (Mus. Brit.)

STOMATELLA BIPORCATA. *Sto. testâ trochiformi, rubrâ, bicarinatâ; spirâ elevatâ, anfractibus angulatis; aperturâ subquadratâ; labio externo biangulato; umbilico callo obtecto.*

THE TWO-RIDGED STOMATELLA. Shell trochiform, red, two-keeled; spire elevated, whorls angular; aperture subquadrate; outer lip biangular; umbilicus closed by a callus.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Australia.

Although, as to the keels, this shell would appear rather to belong to the genus *Stomatia*, it belongs to the present genus on account of the crenulated edge of the whorls at the suture.

Species 22. (Mus. Brit.)

STOMATELLA ARTICULATA. *Sto. testâ suborbiculari, depressâ convexâ, imperforatâ, tenuiusculâ, griseâ; costellis spiralibus nigro articulatis, interstitiis concentricè liris elevatis ornatis; spirâ prominulâ; anfractibus convexis, ultimo magno, obliquo.*

THE ARTICULATED STOMATELLA. Shell suborbicular, depressed, convex, imperforate, rather thin, grey; spiral ribs articulated with black; interstices concentrically ornamented with raised ridges; spire prominent; whorls convex, the last large, oblique.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Australia.

Differing slightly in form from *Stomatella imbricata*, but much more in the sculpture. The interstices of the articulated ribs are in a manner cancellated by very fine ridges in the other direction.

Species 23. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA ORBICULATA. *Sto. testâ suborbiculatâ, subdepressâ, subviridi, fusco variegatâ, costellis rotundis inæqualibus confertis liratâ; spirâ prominenti, anfractibus rotundis; aperturâ subcirculari.*

THE ORBICULAR STOMATELLA. Shell nearly round, rather depressed, greenish, variegated with brown; ridged with rounded unequal ribs; spire prominent, whorls rounded; aperture subcircular.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Mozambique.

Collected by the Rev. W. N. Hennah, under stones at low water.

Species 24. (Mus. Brit.)

STOMATELLA MALUKANA. *Sto. testâ suborbiculari, inflatâ, imperforatâ, concentricè striatâ, costellis spiralibus subrotundis, inæqualibus liratâ, fumoso-fuscâ, strigis irregularibus variegatâ; spirâ prominulâ; aperturâ subovatâ.*

THE MOLUCCAS STOMATELLA. Shell suborbicular, inflated, imperforated, concentrically striated,

ridged with spiral, roundish, unequal ribs; smoky brown, varied with irregular stripes; spire rather prominent; aperture subovate.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Moluccas.

Species 25. (Fig. *a*, *b*, Mus. Cuming.)

STOMATELLA BICARINATA. *Sto. testâ trochiformi, perforatâ, tenuiùsculâ, pallidè fulvâ, strigis irregularibus, subconcentricis, viridis pictâ; spirâ prominulâ, ultimo anfractu distanter bicarinato; aperturâ subquadratâ; labio interno tenui; umbilico parvo.*

THE TWO-KEELED STOMATELLA. Shell trochiform, perforated, rather thin, pale fulvous, painted with irregular partly concentric green stripes; spire a little prominent; last whorl distantly two-keeled; aperture rather square; inner lip thin; umbilicus small.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stomatella, Sp. 21, f. 39, 40.

Hab. Moreton Bay, Australia.

Resembling the *Stomatiæ*, yet differing from them in the same way as *Stomatella biporcata.*

Species 26. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA COCCINEA. *Sto. testâ parvâ, obliquè subovatâ, lævigatâ, rubrâ, maculis albis seriatim in medio anfractus ultimi dispositis ornatâ; anfractu ultimo tenuiter sulcato, subangulato; aperturâ obliquè lateraliter producto, labio interno albo, lato, semiperforato.*

THE COCHINEAL STOMATELLA. Shell small, obliquely subovate, smooth, red, ornamented with a row of white spots in the middle of the last whorl; last whorl finely sulcated, rather angular; aperture obliquely laterally produced; inner lip white, broad, half perforated.

A. ADAMS. Proc. Zool. Soc, 1850.

Hab. St. John's.

The body-whorl is obtusely angulated by two obscure ribs.

27 a

28

29

27 b

30

31

32

33 a

33 b

34

Sowerby del et lith

Vincent Brooks Day & Son, Imp.

STOMATELLA.

PLATE V.

Species 27. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA ELEGANS. *Sto. testâ obliquè elongatâ, auriformi, subcinereâ, purpureo-fuscescenti variegatâ; costis spiralibus, tenuibus, purpureo articulatis ornatâ; aperturâ elongatâ, labio interno perobliquo, valdè arcuato; spirâ parvâ, anfractibus rotundis.*

THE ELEGANT STOMATELLA. Shell obliquely elongated, ear-shaped, rather ashy, variegated with brownish-purple; ornamented with spiral thin ribs articulated with purple; aperture elongated, inner lip very oblique, much arched; spire small, whorls rounded.

GRAY. —— ? MS. in Brit. Mus.

Hab. —— ?

Species 28. (Mus. Brit.)

STOMATELLA ELATA. *Sto. testâ trochiformi, subangulatâ, albâ, maculis quadratis rubris pictâ, costis duobus principalibus et aliis minoribus rubro articulatis ornatâ; spirâ elevatâ, anfractibus exsertis, biangulatis, ad suturam rubro articulatis.*

THE ELEVATED STOMATELLA. Shell trochiform, rather angular, white, painted with squarish red spots, ornamented with two principal, and other smaller red articulated ribs; spire elevated; whorls exserted, biangular, articulated at the suture with red.

H. ADAMS. Proc. Zool. Soc., 1863, p. 433.

Hab. —— ?

All the ribs of various sizes are neatly articulated with red spots.

Species 29. (Mus. Brit.)

STOMATELLA SELECTA. *Sto. testâ suborbiculari, depressâ, lævigatâ, subviridi variegatâ; costis fusco articulatis; spirâ elatâ, angustâ, acuminatâ; ultimo anfractu lato, subumbilicato, horizontali, medio et suprà biangulato et costato; aperturâ ovatâ, depressâ.*

THE CHOICE STOMATELLA. Shell suborbicular, depressed, smooth, variegated with greenish; ribs articulated with brown; spire elevated, narrow; acuminated; last whorl broad, slightly umbilicated, horizontal, biangular and ribbed in the middle and above; aperture ovate, depressed.

A. ADAMS. Proc. Zool. Soc., 1863, p. 433.

Hab. —— ?

Species 30. (Mus. Brit.)

STOMATELLA DILECTA. *Sto. testâ trochiformi, subroseâ, maculis rubris seriatim pictâ; spirâ prominenti, anfractibus subrotundis; ultimo anfractu biangulato, ad angulos costis validis cincto; interstitiis striatis.*

THE ESTEEMED STOMATELLA. Shell trochiform, rather rosy, painted with red spots in rows; spire prominent, whorls roundish; last whorl biangular, belted with strong ribs at the angles; interstices striated.

H. ADAMS. —— ?

Hab. —— ?

Resembling *Stomatella modesta* in the markings, but more trochiform.

Species 31. (Mus. Brit.)

STOMATELLA CLATHRATULA. *Sto. testâ subglobosâ, vel trochiformi, altâ, albidâ, fusco-purpureo variegatâ, costis spiralibus fusco-maculatis, scabris ornatâ; interstitiis profundè concentricè liratis; ultimo anfractu globoso, propè columellam costis duabus majoribus instructo; collumellâ latè reflexâ.*

THE LATTICED STOMATELLA. Shell rather globose, or trochiform, high, whitish, varied with purplish-brown, ornamented with brown spotted scabrous spiral ribs; interstices deeply concentrically ridged; last whorl globose with two larger ribs fixed near the columella; columella broadly reflected.

A. ADAMS. —— ?

Hab. —— ?

Species 32. (Mus. Brit.)

STOMATELLA CUMINGII. *Sto. testâ auriformi, obliquè oblongo-ovatâ, lutescenti, fusco-maculatâ, spiraliter costis elevatis moniliformibus validis asperatâ; aperturâ obliquè elongatâ, labio externo crenato; labio interno valdè arcuato.*

CUMING'S STOMATELLA. Shell auriform, obliquely oblong, ovate, yellowish, spotted with brown, spirally roughened with elevated strong beaded ribs; aperture obliquely elongated, outer lip crenated, inner lip strongly arched.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Plate 175, fig. 38.

Hab. ——?

The locality of this handsome species is unknown.

Species 33. (Fig. *a*, *b*, Mus. Brit.)

STOMATELLA CALLIOSTOMA. *Sto. testâ globoso-subdepressâ, tenui, rufescenti, fusco variegatâ, costis tenuibus, inæqualibus, spiraliter liratâ; aperturâ subovatâ, rubrâ, collumellâ albâ, valdè obliquâ.*

THE RED-MOUTHED STOMATELLA. Shell globose-subdepressed, thin, reddish, variegated with brown, spirally ridged with thin, unequal ribs; aperture rather oval, red, columella white, very oblique.

A. ADAMS. Sowerby's Thesaurus Conchyliorum, Stomatella, Sp. 26, figs. 41, 42.

Hab. Ceylon.

Species 34. (Mus. Brit.)

STOMATELLA MODESTA. *Sto. testâ parvâ, ovatâ, depressâ, pallidè subroseâ, rubro-maculatâ, obscurè viridi nebulatâ; spiraliter costis parvis, rubro articulatis liratâ.*

THE MODEST STOMATELLA. Shell small, ovate depressed, pale rosy, spotted with red, clouded with obscure green; spirally ridged with small red articulated ribs.

H. ADAMS. ——?

Hab. ——?

An interesting, prettily spotted species.

STOMATELLA.

	Plate.	Species.
Arabica, *A. Adams*	III.	14
articulata, *A. Adams*	IV.	22
Baconi, *A. Adams*	III.	16
bicarinata, *A. Adams*	IV.	25
biporcata, *A. Adams*	IV.	21
calliostoma, *A. Adams*	V.	33
cancellata, *Krauss*	III.	13
candida, *A. Adams*	II.	8
clathratula, *A. Adams*	V.	31
coccinea, *A. Adams*	IV.	26
Cumingii, *A. Adams*	V.	32
decolorata, Gould. Unidentified.		
dilecta, *H. Adams*	V.	30
elata, *H. Adams*	V.	28
elegans, *Gray*	V.	27
fulgurans, *A. Adams*	I.	1
haliotoidea, *Sowerby*	I.	4
imbricata, *Lamarck*	II.	10
inflata, C. B. Adams. Unidentified.		
irasata, Dufo. Unidentified.		

	Plate.	Species.
Japonica, *A. Adams*	I.	6
maculata, *Quoy*	I.	5
Malukana, *A. Adams*	IV.	24
Margaritana, *A. Adams*	III.	17
minima, Dufo. Unidentified.		
modesta, *H. Adams*	V.	34
monilifera, *A. Adams*	II.	7
notata, *A. Adams*	II.	12
orbiculata, *A. Adams*	IV.	23
pallida, *A. Adams*	III.	19
papyracea, *Chemnitz*	I.	3
sanguinea, *A. Adams*	I.	2
scitula, *H. Adams*	IV.	20
selecta, *A. Adams*	V.	29
speciosa, *A. Adams*	II.	9
splendidula, *A. Adams*	III.	15
sulcifera, *Lamarck*	II.	11
tigrina, *A. Adams*	III.	18
tumida, Gould	I.	3

MONOGRAPH

OF THE GENUS

STOMATIA.

"Frail, but a work divine,
With delicate spire and whorl."—*Tennyson.*

1a

1b

1c

4a

2a

4b

3a

3b

2b

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

STOMATIA.

PLATE I.

Genus STOMATIA, *Helbling*.

Testa haliotoidea, vel subtrochiformis, medio anfractus ultimi spiraliter bicarinata; carinis tuberculatis. Spira producta, anfractibus ad suturam rugato-plicatis. Operculum nullum.

Shell haliotis-shaped, or trochiform, spirally keeled in the middle of the last whorl; keels tuberculated. Spire produced, whorls wrinkled in plaits at the suture. Operculum none.

The distinction between this genus and *Stomatella* is, that the shells of *Stomatia* have two more or less distinct tuberculated keels in the middle of the whorls and are crenulated at the suture. The habitats are as in *Stomatella*, the majority being Philippine. The type, *Stomatia phymotis*, is a Red Sea shell, and its nearest ally, *S. Australis*, affects the locality which its name implies, besides being found in the Philippines.

The genus *Microtis*, consisting of but a single species, is hardly worth separating, the dictinction being the singular one of the inner margin of the aperture being continued spirally and visible to the apex.

Species 1. (Fig. *a*, *b*, *c*, Mus. Brit., Nobis., &c.)

STOMATIA AUSTRALIS. *Sto. testâ obliquâ, angustâ, aureo-subviridi, vel pallidè purpureo-rubescenti, vel variegatâ, costellis acutè noduliferis liratâ; spirâ parvâ, elevatâ, anfractibus duobus, parvis, bicarinatis; ultimo anfractu magno, ad suturam validè plicato, infrà plicas excavato, tùm moderatè gibboso, deinde declivi, medio bicarinato, carinis subdistantibus, subæqualibus, acutè nodulosis; infrà carinas rugosis.*

THE AUSTRALIAN STOMATIA. Shell oblique, narrow, greenish gold, or pale purplish-red, or variegated, ridged with little noduliferous ribs; spire small, elevated, whorls two, small, two-keeled; last whorl large, strongly plaited at the suture, excavated below the plaits, then moderately gibbous, thence sloped, bicarinate in the middle, keels rather distant, nearly equal, sharply nodulous; wrinkled below the keel.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Australia. Philippines.

Differing from *Stomatia phymotis* in the narrower form, sharp tubercles, and equal central keels. In this species we include all the shells figured as varieties of *St. phymotis* in the Thesaurus. But fig. 51 (Thes.) represents a very abnormal form.

Species 2. (Fig. *a*, *b*, Mus. Brit. and Nobis.)

STOMATIA PHYMOTIS. *Sto. testâ valdè obliquâ, crassâ, rugosâ, rubro variegatâ; ad suturam plicato-rugatâ, tùm tumidâ, tuberculatâ, medio carinîis duobus obtusis, tuberculatis ornato; infrà tuberculatim costatâ; aperturâ obliquè subquadratâ; apice elevato, exserto, acuto.*

THE TUBERCLED STOMATIA. Shell very oblique, thick, rugose, variegated with red, plaited in wrinkles at the suture, then tumid, tuberculated, ornamented in the middle with two obtuse, tuberculated keels, with tuberculated ribs below; aperture obliquely subquadrate; apex elevated, exserted, sharp.

HELBLING.

Haliotis imperforata, Chemnitz.

Hab. Red Sea. Gulf of Suez.

Species 3. (Fig. *a*, *b*, Mus. Nobis.)

STOMATIA OBSCURA. *Sto. testâ obliquè subquadratâ, pallidissimè rubro variegatâ, tuberculis rotundatis plicisque rugatâ; spirâ parvâ, exsertâ; ultimo anfractu ad suturam plicato excavato inter plicas profundè faveolato, tùm carinâ tuberculatâ elevatâ et ad medium carinâ duplicatâ prominenti cincto;*

inter carinas excavato; infrà irregulariter tuberculato.

THE OBSCURE STOMATIA. Shell obliquely subquadrate, varied with very pale red, wrinkled with rounded tubercles and plaits; spire small, exserted; the last whorl plaited and excavated at the suture; deeply pitted between the plaits; then belted with an elevated tubercled keel, and at the middle with a doubled prominent keel; excavated between the keels; irregularly tubercled below.

LAMARCK. Anim. sans Vert., sp. 2.

Hab. Suez.

This remarkable form may possibly only represent a variation of *St. phymotis*, and its identification as Lamarck's shell is by no means clear. It is admitted here, however, as it is recognised in collections.

Species 4. (Fig. *a*, *b*, Mus. Brit.)

STOMATIA TUBERCULATA. *Sto. testâ auriformi, valdè depressâ, spiraliter striatâ, variegatâ, ad suturam validè plicatâ; suprà et infrà medium anfractuum bicarinatâ; carinis tuberculatis; aperturâ magnâ, labio columellari usque ad apicem perspectivè spirali.*

THE TUBERCULATED STOMATIA. Shell auriform, much depressed, spirally striated, variegated, strongly plaited at the suture; two-keeled above and below the middle of the whorls; keels tuberculated; aperture large, columellar lip perspectively spiral as far as the apex.

A. ADAMS (Microtis). Proc. Zool. Soc., 1850.

Microtis tuberculata, H. and A. Adams.

Hab. Isl. Capul, Philippines.

5

6

7

8a

9

10

8b

11a

a b

12

11b

Sowerby del et lith.

Vincent Brooks Day & Son. Imp.

STOMATIA.

PLATE II.

Species 5. (Mus. Adams.)

STOMATIA VARIEGATA. *Sto. testâ obliquè elevatâ, solidâ, angustâ, fusco-rubescenti, flammis variegatâ; spirâ elevatâ, acuminatâ, ultimo obscurissimè biangulato; aperturâ perobliquâ, magnâ, margine crassiùsculo.*

THE VARIEGATED STOMATIA. Shell obliquely elevated, solid, narrow, reddish-brown, varied with flames; spire raised, acuminated; last whorl very obscurely biangular; aperture very oblique, large, margin rather thick.

H. ADAMS (Stomatia). Proc. Zool. Soc., 1863.

Hab. Mauritius.

Although smooth, like a *Gena*, this species has more the form and (very obscurely) the two spiral keels of a *Stomatia*.

Species 6. (Mus. Brit.)

STOMATIA DECUSSATA. *Sto. testâ parvâ, trochiformi, striis concentricis et costellis spiralibus decussatâ, pallidâ, flammulis rubris concentricis ornatâ; spirâ elevatâ, anfractibus biangulatis.*

THE DECUSSATED STOMATIA. Shell small, trochiform; decussated with concentric striæ and spiral riblets, pale, ornamented with concentric red flames; spire elevated, whorls biangular.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Island of Luzon, Philippines.

Species 7. (Mus. Brit.)

STOMATIA ACUMINATA. *Sto. testâ parvâ, fuscâ, cancellatâ, subtrochiformi; spirâ elevatâ, apice acuminato; ultimo anfractu depresso, ad suturam valdè plicato, medio, suprà et infrà tricostato, costâ mediani prominenti, tuberculatâ.*

THE ACUMINATED STOMATIA. Shell small, brown, cancellated, rather trochiform; spire elevated, apex acuminated; last whorl depressed, strongly plaited at the suture, three-ribbed in the middle, above and below; middle rib prominent, tuberculated.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Philippines.

Species 8. (Fig. *a*, *b*, Mus. Brit.)

STOMATIA RUBRA. *Sto. testâ tenui, depressâ, suborbiculatâ, rubrâ, albo maculatâ, medio et supernè bicarinatâ; carinis moniliformibus; aperturâ subovatâ, columellâ angustè reflexo, areâ post columellari albâ.*

THE RED STOMATIA. Shell thin, depressed, suborbicular, red, white spotted, two keeled in the middle and above; keels beaded; aperture subovate, columella narrowly reflected, area behind the columella white.

LAMARCK (Stomatella). Anim. sans Vert. sp. 2.

Hab. Philippine Islands. Korea.

One of the finest examples of the more orbicular form among the *Stomatiæ*.

Species 9. (Mus. Brit.)

STOMATIA LIRATA. *Sto. testâ orbiculatâ, depressâ, stramineâ, fusco variegatâ, costellis subæqualibus, tenuibus liratâ, medio carinatâ, ad suturam plicis parvis numerosis rugatâ.*

THE RIDGED STOMATIA. Shell orbicular, depressed, straw-coloured, varied with brown, keeled in the middle, ridged with thin, nearly equal ribs, wrinkled with numerous small plaits at the suture.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. ——?

Species 10. (Mus. Brit.)

STOMATIA ANGULATA. *Sto. testâ orbiculatâ, depressâ, pallidâ, seriatim maculis strigisque fuscis subviridis variegatâ, minutè decussatâ, ad suturam plicatâ; propè suturam planulatâ, medio et suprà bicostatâ, infrà liratâ.*

THE ANGULAR STOMATIA. Shell orbicular, depressed, pale, variegated with greenish-brown spots and stripes; plaited at the suture, flattened near the suture, two ribbed in the middle and above; ridged below.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Luzon, Philippines.

Species 11. (Fig. *a*, *b*, Mus. Brit.)

STOMATIA DUPLICATA. *Sto. testâ subauriculiformi, variegatâ, elevatâ, undulatim spiraliter striatâ, spirâ majusculâ, anfractibus biangulatis; anfractu ultimo medio bicostato, costis moniliformibus, unâ infrà, alterâ suprà medium dispositis; aperturâ mediocri, obliquâ.*

THE DOUBLE-RIDGED STOMATIA. Shell subauricular, variegated, raised, wavily spirally striated; spire rather large, whorls biangular; last whorl two-ribbed, ribs beaded, one placed below, the other above the middle; aperture medium-sized, oblique.

SOWERBY. Genera of Shells.

Hab. Isl. Mindinao, Philippines.

A very well distinguished species, in form between the orbicular and the auricular, but inclining to the latter.

Species 12. (Fig. *a*, *b*, Mus. Nobis.)

STOMATIA DEPRESSA. *Sto. parvâ, orbiculari, depressâ, fulvo-rubescenti, strigis fusco-rubris obliquis ornatâ, costellis moniliferis tenuibus liratâ, suprà medium anfractuum costis acutè tuberculatis bicarinatâ; aperturâ subauriformi, mediocri.*

THE DEPRESSED STOMATIA. Shell small, orbicular, depressed, reddish-fawn, ornamented with oblique stripes of red-brown, two-keeled above the middle of the whorls with sharply tuberculated ribs. Aperture subauriform, middle-sized.

SOWERBY.

Hab. —— ?

MONOGRAPH

OF THE GENUS

GENA.

"If there's a power above us,
(And that there is, all nature cries aloud
Through all her works)."—*Addison.*

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Sowerby del et lith.

Vincent Brooks Day & Son Imp

GENA.

PLATE I.

Genus GENA, *Gray*.

Testa auriformis, depressa, obliqua, lævigata aut striata; spira parva, vix exserta; apertura maxima, ovata, intùs nacr: a. Operculum nullum.

Shell auriform, depressed, oblique, smooth or striated; spire small, scarcely exserted; aperture very large, ovate, pearly within. Operculum none.

Generally the GENÆ may be distinguished from the other two Genera of *Stomatellinæ* by their flattened form and smooth surface, although some of the smaller species have a somewhat more orbicular form. The animals live among stones or on coral reefs between tides. A large proportion of the species are the results of the late Mr. Cuming's researches in the Philippines. Australia and some of the Pacific Islands contribute a few.

Species 1. (Mus. Brit.)

GENA LINTRICULA. *Gen. testâ parvâ, elongatâ, planulatâ, spiraliter striatâ, pallidissimè fulvâ, rubro variegatâ; spirâ minutâ; ultimo anfractu suprà medium depresso, attenuato.*

THE LITTLE-BOAT GENA. Shell small, elongated, flattened, spirally striated, very pale fulvous, variegated with red; spire minute; last whorl depressed above the middle, attenuated.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Mindoro, Philippines.

More elongated and narrow than any other species.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

GENA LUTEA. *Gen. testâ luteâ, rubro vel fusco variegatâ, lævigatâ, obliquè oblongâ, posticè vix depressâ; spirâ minutâ, ferè planulatâ.*

THE YELLOW GENA. Shell yellowish, variegated with red or brown, smooth, obliquely oblong, posteriorly scarcely depressed; spire small, almost flat.

LINNÆUS (Patella). Systema Naturæ.

Stomatella auricula, Lamarck.

Hab. Eastern Seas.

Species 3. (Fig. *a*, *b*, Mus. Nobis.)

GENA PLANULATA. *Gen. testâ oblongâ, convexo-planulatâ, tenuiter striatâ, virescenti, strigis subviridis vel fasciis articulatis fuscis nebulisque variegatâ; spirâ minimâ, lateraliter decumbenti; labio columellari albo, lato, versùs suturam subcalloso.*

THE FLATTENED GENA. Shell oblong, convex-flattened, finely striated, greenish, variegated with greenish stripes or brown articulated bands and clouds; spire very small, laterally decumbent; columellar lip white, broad, rather callous toward the suture.

LAMARCK (Stomatella). Hist. Nat. Anim. s. Vert.

Hab. Isl. Caminguing, Philippines.

Species 4. (Fig. *a*, *b*, Mus. Brit.)

GENA STRIATULA. *Gen. testâ haliotoideâ, spiraliter striatâ, obliquè oblongâ, subinflatâ, flammulis strigisque rubris vel subviridis variegatâ; spirâ exsertâ; ultimo anfractu dorso propè suturam depresso, subexcavato, tùm subgibboso, deinde subdepresso, ad medium obliquè inflato; aperturâ elongatâ, labio externo flexuoso suprà medium.*

THE STRIATED GENA. Shell haliotis-shaped, spirally striated, obliquely oblong, rather inflated, variegated with red or greenish stripes and flames; spire exserted; last whorl depressed at the back, slightly excavated near the suture, then somewhat gibbous, thence depressed, obliquely inflated at

the middle; aperture elongated, outer lip flexuous above the middle.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Mindoro, Philippines.

Species 5. (Fig. *a*, *b*, Mus. Brit.)

GENA CONCINNA. *Gen. testâ parvâ, inflatâ, subobliquâ, albidâ, rubro variegatâ; spirâ productâ, acuminatâ; ultimo anfractu obliquo, supernè declivi; aperturâ mediocri, intùs variegatâ.*

THE NEAT GENA. Shell small, inflated, rather oblique, whitish, varied with red; spire produced, acuminated; last whorl oblique, sloped above; aperture medium-sized, variegated within.

GOULD (Stomatia). Shells of American Expedition.

Hab. Sandy Island.

This little species has the form which more usually characterizes the *Stomatiæ*.

Species 6. (Fig. *a*, *b*, Mus. Brit.)

GENA LINEATA. *Gen. testâ parvâ, inflatâ, suborbiculari, subroseâ, lineis rubris obliquis ornatâ; spirâ parvâ, acuminatâ; aperturâ subrotundâ; labio columellari albâ, latâ, planulatâ.*

THE LINEATED GENA. Shell small, inflated, suborbicular, pinky, ornamented with red, oblique lines; spire small, acuminated; aperture rather rounded, columellar lip white, broad, flattened.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. ——?

This pretty little shell was in the Cumingian collection, but its locality was unknown.

Species 7. (Mus. Brit.)

GENA PLUMBEA. *Gen. testâ auriformi, latâ, plumbeâ, minutissimè decussatâ, medio et infrà inflatâ, suprà medium depressâ, ad suturam subgibbosâ; aperturâ oblongâ, labio externo sinuato.*

THE LEAD-COLOURED GENA. Shell ear-shaped, broad, lead-coloured, very minutely decussated, inflated in the middle and under, depressed above the middle, a little gibbous at the suture; aperture oblong, outer lip sinuous.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Java.

The dull leaden colour of this shell gives it a peculiar appearance; and the minute crossing striæ form a character worth noting.

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11 b

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Sowerby del et lith.

Vincent Brooks Day & Son Imp

GENA.

PLATE II.

Species 8. (Fig. *a*, *b*, Mus. Brit.)

GENA VARIA. *Gen. testâ parvâ, variegatâ, lævigatâ, obliquâ, posticè subangustatâ, anticè subexpansâ; spirâ paulò exsertâ, acuminatâ, labio columellari, albo, valdè arcuato.*

THE VARIOUS GENA. Shell small, variegated, smooth, oblique, posteriorly rather narrowed, anteriorly slightly expanded; spire a little exserted, acuminated, columellar lip white, much arched.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Mindoro, Philippines.

Nearly resembling *Gena lutea*, but broader and not so much depressed on the upper part of the last whorl.

Species 9. (Mus. Brit.)

GENA ORNATA. *Gen. testâ solidâ, orbiculatâ, fusco-rubrâ, lineis nigris, albo articulatis spiralibus ornatâ; ultimo anfractu dorso rotundo; spirâ parvâ, acuminatâ, rubrâ; aperturâ mediocri, fulvâ.*

THE ORNATE GENA. Shell solid, orbicular, red-brown, ornamented with black spiral lines articulated with white; last whorl rounded at the back; spire small, acuminated, red; aperture medium-sized, fulvous.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Ticao, Philippines.

Species 10. (Mus. Brit.)

GENA CALIGINOSA. *Gen. testâ obliquâ, elevatâ, lævissimâ, nigrâ; spirâ elevatâ, acuminatâ; aperturâ obliquè ovatâ; labio columellari albo, lentè arcuato.*

THE DARK GENA. Shell oblique, elevated, very smooth, black; spire elevated, acuminated; aperture obliquely ovate; columellar lip white, gently arched.

H. & A. ADAMS.

Hab. —— ?

Species 11. (Fig. *a*, *b*, Mus. Brit.)

GENA NIGRA. *Gen. testâ obliquè auriformi, elongato-ovali, convexâ, lævi, nigrâ vel variegatâ, intùs violaceo-nacreâ; spirâ minutâ, fere terminali; aperturâ ovatâ.*

THE BLACK GENA. Shell obliquely auriform, elongated-oval, convex, smooth, black or variegated, purplish-pearly within, spire very small, nearly terminal, aperture ovate.

QUOY. Voy. de l'Astrolabe, t. 17, figs. 154, 155.

Hab. Tonga-Tabou, Sandwich Islands.

Species 12. (Mus. Brit.)

GENA STRIGOSA. *Gen. testâ obliquè ovatâ, convexâ, variegatâ et spiraliter strigatâ, minutè fasciculatim striatâ; aperturâ oblongâ, ovatâ; labio externo vix sinuato; spirâ subplanulatâ.*

THE STRIPED GENA. Shell obliquely ovate, convex, variegated and spirally striped, with minute striæ in bundles; aperture oblong, ovate; outer lip scarcely sinuated; spire partly flattened.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. —— ?

More uniformly convex than *Gena striatula*, with the striæ inclining to run in groups, and with faint stripes traceable through the clouding and marking of the colours.

Species 13. (Mus. Cuming.)

Gena nebulosa. *Gen. testâ parvâ, breviter auriformi, convexâ, pallidè luteâ, flammulis undulatis variegatâ; columellâ callo crasso rimamumbilicatam obtegenti.*

The clouded Gena. Shell small, shortly auriform, convex, pale yellow, varied with undulated flames; columella with a thick callus covering the umbilical border.

A. Adams. Proc. Zool. Soc., 1850.

Hab. Australia.

Species 14. (Mus. Brit.)

Gena dilecta. *Gen. testâ parvâ, angustâ, planulatâ, pallidè purpureo variegatâ; ultimo anfractu ad marginem aperturæ angustissimo.*

The favoured Gena. Shell small, narrow, flattened, variegated with pale purple; last whorl very narrow at the margin of the aperture.

Gould. —— ?

Hab. —— ?

Species 15. (Mus. (olim.) Metcalfe.)

Gena pulchella. *Gen. testâ parvâ, ovali, albâ, rufo maculatâ, convexâ, spiraliter striatâ; spirâ prominulâ; aperturâ magnâ, ovali, intùs iridescenti.*

The pretty Gena. Shell small, oval, white, red-spotted, convex, spirally striated; spire rather prominent; aperture large, oval, iridescent within.

A. Adams. Proc. Zool. Soc., 1850.

Hab. —— ?

Species 16. (Mus. Nobis.)

Gena asperulata. *Gen. testâ haliotoideâ, obliquè ovatâ, liris spiralibus et striis concentricis decussatâ, fuscâ, medio albo unifasciatâ; apice prominulo.*

The rasped Gena. Shell haliotis-shaped, obliquely ovate, decussated with spiral ridges and concentric striæ, brown, with a single white band in the middle; apex rather prominent.

A. Adams. Proc. Zool. Soc., 1850.

Hab. —— ?

MONOGRAPH

OF THE GENUS

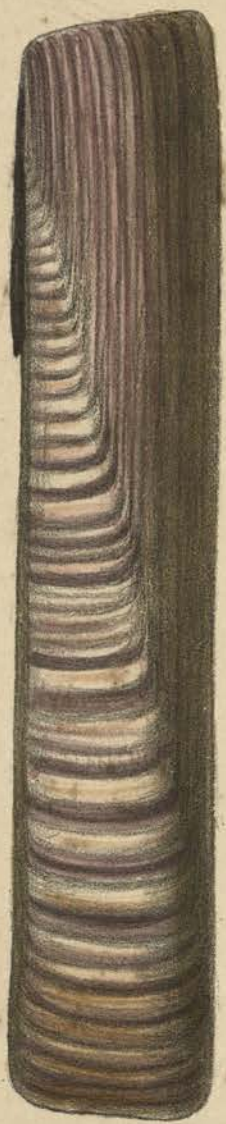
SOLEN.

"To sit on rocks, to muse o'er flood and fell,

* * * * *

* * * 'tis but to hold

Converse with Nature's charms, and see her stores unrolled."—*Byron.*



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Sowerby, del et lith

Vincent Brooks Day & Son, lith

SOLEN.

PLATE I.

Genus SOLEN, *Linnæus.*

Testa æquivalvis, transversè elongata, recta, vel lentè arcuata, utrinquè plus minusve truncata, hians, umbonibus terminalibus. Cardo elongatus, dentibus uno et duobus principalibus. Ligamentum externum. Impressio muscularis antica elongata. Impressio pallii ad terminum quadratim sinuata.

Shell equivalve, transversely elongated, straight, or slightly arched, more or less truncated, gaping, with terminal umbones. Hinge elongated, with one and two principal teeth. Ligament external. Anterior muscular impression elongated. Palleal impression with a square sinus.

There would seem to be no sufficient reason to separate generically the straight from the curved razor-shells. United, they form a capital genus, distinguished from others of the family by having terminal beaks. The shell is also divided into two more or less distinct areas by a diagonal line from the apex at the anterior to the posterior lower corner of the truncated posterior extremity.

The habits of the Solens are peculiar. They form deep burrows in the sand, into and out of which they spring with amazing rapidity by a sudden contraction and expansion of the foot. They can also leap forward with great power. They are found in most temperate and tropical countries, but no country possesses many species. On the coasts of Britain we have several well-known species; Mr. Cuming found several in the Philippines, but most of them are scattered singly in almost as many countries as species.

Species 1. (Mus. Brit.)

SOLEN TRUNCATUS. *Sol. testâ latâ, rectâ, subcompressâ, fasciis purpureis strigatâ, ad terminum posticum latè et perpendiculariter truncatâ; ad terminum anticum obliquè et acutè truncatâ, angulo antico-ventrali acuto.*

THE TRUNCATED SOLEN. Shell broad, straight, subcompressed, striped with purple bands, truncated broadly and perpendicularly at the posterior end; truncated obliquely and sharply at the anterior end, with the antero-ventral angle acute.

SOWERBY. Genera of Shells.

Ceylonensis, Dunker.

Hab. Ceylon.

Solen truncatus, including the varieties, forms a very good and easily recognisable species.

Species 2. (Mus. Sowerby.)

SOLEN VAGINA. *Sol. testâ rectiùsculâ, elongatâ, subdepressâ, versùs umbones subroseâ, anticè subobliquè paulò arcuatâ, posticè subobliquè truncatâ; margine ventrali vix coarctato; margine dorsali medio paulò elevato.*

THE SHEATH SOLEN. Shell rather straight, elongated, subdepressed, rather pink towards the umbones, anteriorly subobliquely truncated; ventral margin scarcely contracted; dorsal margin a little raised in the middle.

LINNÆUS. Systema Naturæ.

Hab. Great Britain.

A well-known species, the largest of the true Solens.

Species 3. (Mus. Brit.)

SOLEN ENSIS. *Sol. testâ angustiùsculâ, arcuatâ, depressâ, subtùs epidermide pallidè roseâ vel griseâ strigatâ, ad terminum anticum subrotundâ, ad terminum posticum rectè truncatâ; margine dorsali arcuatim excavato; margine ventrali arcuatim convexâ.*

THE SWORD SOLEN. Shell very narrow, curved, depressed, striped with pale rose or grey beneath the epidermis, straightly truncated at the posterior end; a little rounded at the anterior end; dorsal margin sloped out in a curve; ventral margin convex in an arch.

LINNÆUS. Systema Naturæ.

Siliqua ensis. Schumacher.

Hab. Great Britain.

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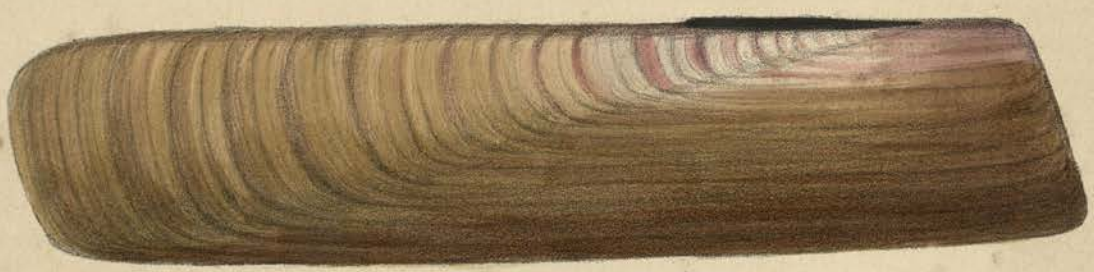

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Sowerby del et lith.

Vincent Brooks Day & Son Imp.

SOLEN.

PLATE II.

Species 3. (Fig. *b*, Mus. Nobis.)

It is thought desirable to present this common variety of SOLEN ENSIS, because Mr. Dunker seems to have given the name *Solen aruana* to specimens in the British Museum from Aru Island, which can in no way be distinguished from the British forms.

Species 4. (Mus. Nobis.)

SOLEN MARGINATUS. *Sol. testâ angustiùsculâ, convexâ, fulvâ; epidermide tenui; margine dorsali recto; areâ dorsali lineari, inconspicuâ; areâ umbonali latâ, subrugosâ; margine ventrali medio vix excavato; margine postico rectiùsculo; margine antico obliquo, elevato, unicostato, post costam canali profundo constricto.*

THE BORDERED SOLEN. Shell rather narrow, convex, fulvous; epidermis thin; dorsal margin straight, dorsal area linear, inconspicuous; umbonal area broad, rather rough; ventral margin very slightly excavated in the middle; anterior margin oblique, raised, single-ribbed, constricted behind the rib by a deep canal.

PULTENY.

Solen vagina, Pennant, non Linnæus.

Hab. Britain.

Species 5. (Mus. Brit.)

SOLEN GRANDIS. *Sol. testâ latâ, subcompressâ, purpureo strigatâ, anticè subattenuatâ; margine dorsali rectiùsculo, areâ latiùsculâ; margine ventrali antè medium paulò angustato, margine postico angusto, subrotundatim quadrato; margine antico simplici, valdè obliquo, ad marginem ventralem obliquè acuminato.*

THE LARGE SOLEN. Shell broad, subcompressed, striped with purple, anteriorly rather attenuated; dorsal margin rather straight, area rather broad; ventral margin a little narrowed before the middle, posterior margin narrow, rather roundly square; anterior margin simple, very oblique, obliquely acuminated at the ventral margin.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Philippines.

Broader in proportion than *Solen truncatus;* rather narrowed towards the posterior end, and the anterior margin more oblique.

Species 6. (Mus. Brit.)

SOLEN BREVIS. *Sol. testâ rectiùsculâ, posticè subcomplanatâ et attenuatâ, purpureo strigatâ; margine dorsali posticè subdeclivi; margine postico angusto, rotundo; margine antico abruptè truncato.*

THE SHORT SOLEN. Shell rather straight, posteriorly a little flattened and tapering, striped with purple; dorsal margin posteriorly sloped; posterior margin narrow, rounded; anterior margin abruptly truncated.

GRAY, in Brit. Mus.

Hab. American Seas.

Differing from *Solen truncatus* in being sloped or tapering towards the posterior end.

April, 1874.

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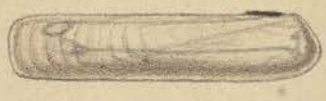

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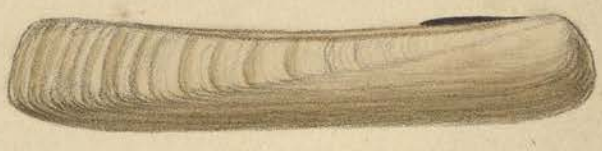

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Sowerby del et lith

Vincent Brooks Day & Son, Imp

SOLEN.

PLATE III.

Species 7. (Mus. Brit.)

SOLEN ROSTRUM-ANATIS. *Sol. testâ brevi, paulò arcuatâ subtùs epidermidem purpureo-fasciatâ, intùs et ad umbones roseo-purpureâ; posticè subattenuatâ et planulatâ, margine ventrali medio convexiùsculo, margine antico elevato, valdè obliquo. Epidermide nitenti, aureo-subviridi.*

THE DUCK'S BILL SOLEN. Sheli short, a little curved, purple-banded under the epidermis, pinky purple at the umboes and within; rather tapering and flattened posteriorly; ventral margin rather convex, anterior margin raised, very oblique. Epidermis shining, greenish-gold.

DUNKER. Proc. Zool. Soc., 1861.

Hab. ——?

Species 8. (Mus. Brit.)

SOLEN DELESSERTI. *Sol. testâ brevi, rectâ, utrinquè truncatâ, tenuiter omnino rugatâ, pallidâ; margine antico elevato, canali profundo constricto.*

DELESSERT'S SOLEN. Shell short, straight, truncated at both ends, finely wrinkled all over, pale; anterior margin elevated, constricted with a deep canal.

CHENU. Illustrations Conchyliologiques.

Hab. ——?

This curious little *Solen* is wrinkled finely all over, and has a very strong stricture close to the anterior margin.

Species 9. (Mus. Brit.)

SOLEN VITREUS. *Sol. parvâ, pallidâ, tenui, pellucidâ, rectiùsculâ, margine postico truncato; margine antico obliquo, ad marginem ventralem acclivi.*

THE GLASSY SOLEN. Shell small, pale, thin, pellucid, rather straight; posterior margin truncated; anterior margin oblique, sloped upwards at the ventral margin.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Malacca.

This pretty little shell is so thin and transparent that the complicated system of muscle and mantle-marks is seen on the outer surface.

Species 10. (Mus. Brit.)

SOLEN SLOANII. *Sol. testâ rectâ, angustâ, utrinquè truncatâ, strigis maculisque purpureis omnino variegatâ; margine dorsali recto, areâ angustissimâ; margine ventrali rectiùsculo, propè terminum anticum contracto; margine antico recto, canali contracto.*

SLOANE'S SOLEN. Shell straight, narrow, truncated at each end, varied in every part with purple stripes and spots; dorsal margin straight, area very narrow; ventral margin rather straight, contracted near the anterior end; anterior margin straight contracted with a groove.

GRAY.

Solen versicolor, Philippi.

Hab. ——?

A prettily varied shell.

Species 11. (Mus. Brit.)

SOLEN JONESII. *Sol. testâ brevi, rectiùsculâ, subtùs epidermidem fulvo-grisescente, ad umbonem purpureo tinctâ, post marginem purpureo uniradiatâ; margine antico incrassato, tùm depresso; areâ umbonali latâ, areâ dorsali lineari; margine ventrali propè marginem anticum acclivi.*

JONES'S SOLEN. Shell short, rather straight, under the epidermis brownish-grey, tinted at the umbo with purple, with a ray of purple behind the margin; anterior margin thickened, then depressed; umbonal area broad, dorsal area linear, ventral margin sloped upwards near the anterior margin.

DUNKER. Proc. Zool. Soc., 1861.

Hab. ——?

Species 12. (Mus. Brit.)

SOLEN SCALPRUM. *Sol. testâ pallidâ, compressâ, utrinquè paulò arcuatâ; epidermide tenui, pallido, ad marginem inferiorem areæ umbonalis rugato; margine dorsali paulò arcuato; margine ventrali propè terminos arcuato, medio vix excavato.*

THE SCALPEL SOLEN. Shell pale, compressed, a little arched at each end; epidermis thin, pale, wrinkled at the lower margin of umbonal area; dorsal margin a little curved; ventral margin curved near the ends, very slightly excavated in the middle.

KING. Zool. Journal.

Solen Luzonicus, Dunker.

Hab. Sea-Bear Bay, Patagonia, *King*.—Philippines, *Cuming*.

It is quite impossible to discover any specific difference between the Patagonian and Philippine shells in the British Museum.

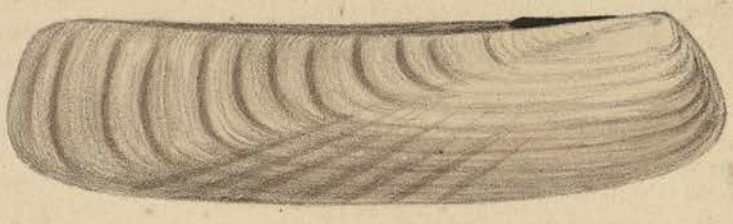
Species 13. (Mus. Brit.)

SOLEN PHILIPPIANUS. *Sol. testâ angustatâ, paulò arcuatâ, pallidâ, maculis pallidissimis fulvo-purpureis variegatâ; margine ventrali utrinquè paulò acclivi; margine dorsali medio arcuatim depresso; margine antico obliquo, constricto.*

PHILIPPI'S SOLEN. Shell narrow, a little curved, pale, varied with very pale fulvous-purple; ventral margin a little sloped upwards at each end; dorsal margin depressed in a curve in the middle; anterior margin oblique, constricted.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Australia.



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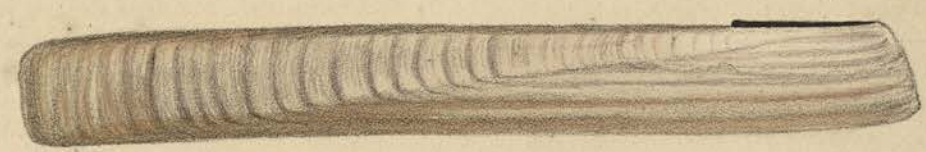

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Sowerby del. et lith.

Vincent Brooks Day & Son, Imp.

SOLEN.

PLATE IV.

Species 14. (Mus. Brit.)

SOLEN SICARIUS. *Sol. testâ latâ, brevi, pallidâ, paulò arcuatâ, compressâ; epidermide stramineo; margine dorsali depresso, arcuato, areâ angustâ; margine postico subrotundato; margine antico elevato, obliquo, arcuato; margine ventrali utrinquè paulò acclivi.*

THE SHORT-SWORD SOLEN. Shell broad, short, pale, a little curved, compressed; epidermis straw-coloured; dorsal margin depressed, curved, area narrow; posterior margin rather rounded, anterior side raised, oblique, curved; ventral margin a little sloped upwards at each end.

GOULD. United States Exploring Expedition.

Hab. ——?

Species 15. (Mus. Nobis.)

SOLEN GUINEENSIS. *Sol. testâ brevi, recto, lato, ad umbones radiatim purpureo, ad aream umbonalem purpureo-strigato; margine postico truncato, recto; margine antico subobliquè truncato, constricto.*

THE GUINEA SOLEN. Shell short, straight, broad, radiating with purple at the umboes, striped with purple on the umbonal area; posterior margin truncated, straight; anterior margin rather obliquely truncated, constricted.

GRAY. Brit. Mus. Hanley, Species of Shells.

Hab. Co. of Guinea.

Species 16. (Mus. Nobis.)

SOLEN LAMARCKII. *Sol. testâ brevi, purpureâ, ad aream posticam strigatâ, posticè subattenuatâ, propè marginem anticum purpureo uniradiatâ; margine antico subobliquè truncato; marginibus dorsali ventralique rectis; margine postico suprà infraque subrotundato.*

LAMARCK'S SOLEN. Shell short, purple, striped at the posterior area, posteriorly a little tapering, a single purple ray near the anterior margin; anterior margin rather obliquely truncated; dorsal and ventral margins straight; posterior margin a little rounded above and below.

CHEMN. Illustrations Conchyliologiques.

Hab. Ceylon.

Species 17. (Mus. Brit.)

SOLEN GRACILIS. *Sol. testâ elongatâ, angustatâ, tenui rectiùsculâ, pallidè fùlvâ; areis indistinctis; margine postico truncato, recto; margine antico obliquè truncato, simplici.*

THE SLENDER SOLEN. Shell elongated, narrow, thin, rather straight, pale fulvous; areas indistinct; posterior margin truncated, straight; anterior margin obliquely truncated, simple.

PHILIPPI. Abbildungen.

Hab. Hakodaki, Japan.

Species 18. (Mus. Brit.)

SOLEN ROSTRIFORMIS. *Sol. testâ angustâ, compressâ, pallidè roseo strigatâ; posticè subattenuatâ, ad terminum rotundatâ; margine antico elevato, subobliquo.*

THE BEAK-SHAPED SOLEN. Shell narrow, compressed, striped with pale rose; posteriorly a little tapering, rounded at the end; anterior margin raised, rather oblique.

DUNKER. Proc. Zool. Soc., 1861.

Hab. ——?

More narrow and tapering than *Solen rostrum-anatis*.

Species 19. (Mus. Brit.)

SOLEN CORNEUS. *Sol. testâ angustâ, rectâ, pallidâ, utrinque truncatâ; propè umbones pallidè purpureo tinctâ; epidermide corneo, pallido.*

THE HORNY SOLEN. Shell narrow, straight, pale, truncated at each end; tinged with pale purple near the umboes; epidermis horny, pale.

LAMARCK. Animaux sans Vertèbres.

Hab. Java.

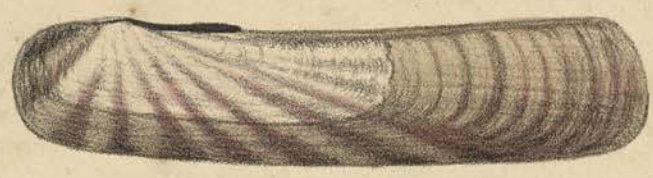
Species 20. (Mus. Brit.)

SOLEN MALACCENSIS. *Sol. testâ elongatâ, angustâ, rotundâ, rectiùsculâ, fumoso-fulvâ, areis obliquis distinctis; margine postico truncato, margine dorsali rectiùsculo; areâ dorsali angustâ; termino antico truncato, paulò acclivi.*

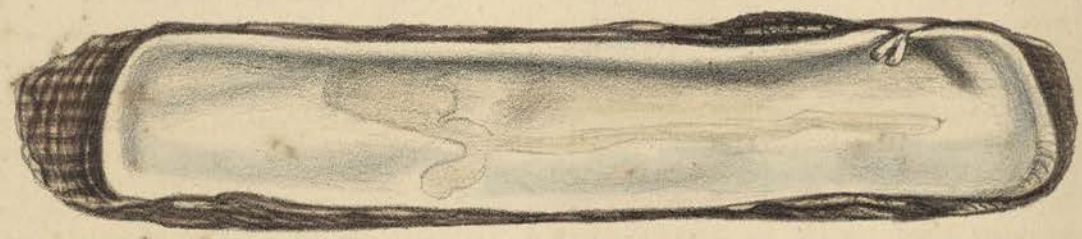
THE MALACCA SOLEN. Shell elongated, narrow, rounded, rather straight, smoky-fulvous, oblique; areas distinct; posterior margin truncated; dorsal margin rather straight; dorsal area narrow; anterior margin truncated, a little sloped upwards.

DUNKER. Proc. Zool. Soc., 1861.

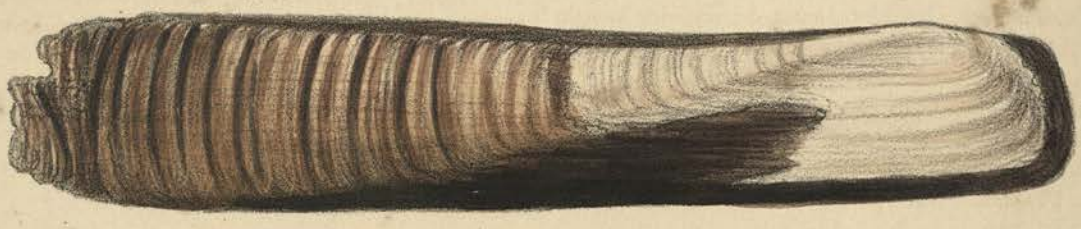
Hab. Malacca.



21a



21b



21c

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Sowerby del et lith.

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SOLEN.

PLATE V.

Species 21. (Fig. *a*, *b*, *c*, Mus. Brit.)

SOLEN AMBIGUUS. *Sol. testâ solidâ, paulò arcuatâ, altiusculâ, posticè subexpansâ: epidermide crasso, rugato, fusco-nigrescenti, ultra margines extenso indutâ, ætate juniori radiis fulvis prope marginem latescentibus pictâ; umbonibus a termino subdistantibus; margine cardinali crasso, arcuatim vix depresso; margine postico latè truncato; margine antico incrassato, obliquè truncato.*

THE AMBIGUOUS SOLEN. Shell solid, a little arched, rather deep, and posteriorly a little expanded; epidermis thick, wrinkled, covered with a blackish-brown epidermis extending beyond the margins; in a young state painted with fulvous rays becoming broad towards the margin; umboes some distance from the end; cardinal margin thick, depressed, with a very slight curve; posterior margin broadly truncated; anterior margin thick, obliquely truncated.

LAMARCK. Anim. sans Vert., Solen, Sp. 7.

Solen rudis, C. B. Adams.

Solen obliqua, ——?

Solen Philippinarum, Hanley.

Hab. Panama. Philippines.

The umboes of this shell being placed at some distance from the anterior termination, give it a character not strictly agreeing with the "Razor shells," but leading towards the group represented by *Solen cultellus*, which we shall include in the present monograph.

Species 22. (Mus. Nobis.)

SOLEN LINEARIS. *Sol. testâ rectâ, elongatâ, angustissimâ, tenui, purpureo rubescenti fasciatâ; terminibus truncatis; marginibus dorsali ventralique rectis; areâ dorsali lineari.*

THE LINEAR SOLEN. Shell straight, elongated, very narrow, thin, banded with reddish-purple; ends truncated; dorsal and ventral margins straight; dorsal area linear.

CHEMNITZ. Conch., vol. xi. Pl. 138, f. 19, f. 1, 2.

Hab. ——?

This is represented by a very young shell of doubtful character in the British Museum, but the specimens from which the present figure is taken present unmistakable characters.

Species 23. (Mus. Brit.)

SOLEN VAGINOIDES. *Sol. testâ breviùsculâ, arcuatâ, utrinque truncatâ, posticè paulò expansâ, anticè angustiùsculâ, fasciis pallidè rubris pictâ; epidermide tenui; margine antico abruptè truncato, acuto; marginibus dorsali ventralique arcuatis, areâ dorsali medio subexpanso.*

THE SHEATH-LIKE SOLEN. Shell rather short, curved truncated at each end, a little expanded posteriorly, rather narrowed anteriorly, painted with red bands; epidermis thin; anterior margin abruptly truncated, sharp; dorsal and ventral margins arched, dorsal area a little expanded in the middle.

LAMARCK. Anim. sans Vert., Solen, Sp. 3.

Hab. Van Diemen's Land.

Species 24. (Mus. Brit.)

SOLEN LUZONICUS. *Sol. testâ brevi, rectiùsculâ, fasciis purpureis, ad aream medianum arcuatis, pictâ, epidermide vividè fusco indutâ; intùs purpureâ; termino antico obliquè truncato, margine acclivi; termino postico subattenuato, paulò acclivi, margine rotundo.*

THE LUZON SOLEN. Shell short, rather straight, painted with purple bands, curved on the medial area, covered with a bright brown epidermis, purple within; anterior end obliquely truncated, with margin sloped upwards; posterior end rather attenuated, a little sloped upwards, margin rounded.

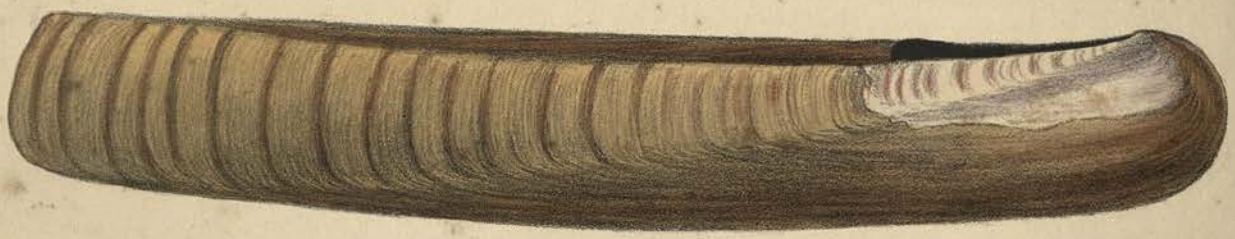
DUNKER. Proc. Zool. Soc., 1861.

Hab. Isl. Luzon, Philippines.

More straight and narrow than *Solen rostriformis*.

25 26

27



28

29 30

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

SOLEN.

PLATE VI.

Species 25. (Mus. Brit.)

SOLEN VIRIDIS. *Sol. testâ parvâ, pallidè corneâ, tenui, paulò arcuatâ, posticè subattenuatâ, margine subrotundo, anticè latiusculo, margine terminali acclivi, obliquè truncato, subreflexo; margine dorsali recto; margine ventrali convexo.*

THE GREEN SOLEN. Shell small, pale horny, thin, a little arched, posteriorly subattenuated, with margin a little rounded, anteriorly rather broader, with terminal margin sloped upwards, obliquely truncated, subreflected; dorsal margin straight; ventral margin convex.

SAY. Journ. Acad. Nat. Sci. Philadelphia.

Hab. North America.

Species 26. (Mus. Brit.)

SOLEN PFEIFFERI. *Sol. testâ brevi, rectâ, purpureo fasciatâ, epidermide fusco, rugato indutâ; margine dorsali rectiùsculo; areâ angustissimâ; margine ventrali paulò ventricosâ; margine postico abruptè truncato; margine antico convexiùsculo, obliquo.*

PFEIFFER'S SOLEN. Shell short, straight, banded with purple, covered with a brown wrinkled epidermis; dorsal margin rather straight; area very narrow; ventral margin a little ventricose; posterior margin abruptly truncated; anterior margin rather convex, oblique.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Bay of Caraccas.

Species 27. (Mus. Brit.)

SOLEN TIMORENSIS. *Sol. testâ rectâ, latâ, lineis fasciisque purpureis pallidis pictâ; anticè obliquè truncatâ, ad marginem ventralem acuminatâ; areâ dorsali angustissimâ; areâ medianâ latâ.*

THE TIMOR SOLEN. Shell straight, broad, anteriorly, painted with pale purple lines and bands; obliquely truncated in front, acuminated at the ventral margin; dorsal area very narrow, middle area broad.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Timor.

Differing from *Solen truncatus* in the great obliquity of the anterior terminal margin and its acuminated ventral corner.

Species 28. (Mus. Brit.)

SOLEN MACHA. *Sol. testâ magnâ, subcompressâ, rectiùsculâ, ad terminos acclivi, epidermide nitenti fusco-subviridi indutâ; umbonibus retrorsis; margine antico elevato, convexo, acclivi, versùs umbones inclinato; margine postico paulò acclivi, subobliquè truncato.*

THE HAPPY SOLEN. Shell large, rather compressed, rather straight, sloped at the ends, covered with a shining greenish-brown epidermis; umboes bent backwards; anterior margin, raised, convex, sloped upwards, leaning towards the umboes; posterior margin raised, rather obliquely truncated.

OKEN. —— ? MS. Mus. Brit.

Hab. —— ? Specimens in the Cumingian collection.

The shell is not straight as *Solen siliqua*, nor curved as *Solen ensis*, but nearly straight except at the ends, which are a little turned up.

Species 29. (Mus. Brit.)

SOLEN FONESII. *Sol. testâ brevi, rectiùsculâ, corneo-subviridi; marginibus dorsali ventralique vix arcuatis; margine postico obtusè truncato, paulò convexo; margine antico acuto, obliquè truncato.*

FONES'S SOLEN. Shell short, rather straight, greenish-horny; dorsal and ventral margins scarcely

arched; posterior margin obtusely truncated, a little convex; anterior margin sharp, obliquely truncated.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Isl. Zebu, Philippines.

Species 30. (Mus. Brit.)

SOLEN REGULARIS. *Sol. testâ rectâ, brevi, pallidè fulvâ, subrhomboideâ; marginibus ventrali dorsalique rectis; terminis obliquè truncatis, antico declivi, postico acclivi.*

THE RULE SOLEN. Shell straight, short, pale fulvous, rather rhomboidal; dorsal and ventral margins straight; ends obliquely truncated, anterior sloped downward, posterior sloped upwards.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Malacca.

The dorsal and ventral margins are straight, and the ends obliquely parallel.

18 b

31

32

33 a

33 b

20 b

34

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SOLEN.

PLATE VII.

Fig. 18 *b* (number erroneous), Mus. Brit.

SOLEN CORNEUS, var. See Species 19.

Fig. 20 *b* (number erroneous), Mus. Brit.

SOLEN LUZOICUS, var. See Species 24.

Species 31. (Mus. Brit.)

SOLEN LEANI. *Sol. testâ parvâ, pallidâ, tenui, rectâ, posticè attenuatâ; ad terminum anticum acutè et subobliquè truncatâ, post terminum canaliculatâ, ad terminum posticum subrotundâ.*

LEAN'S SOLEN. Shell small, pale, thin, straight, posteriorly attenuated; sharply and rather obliquely truncated at the anterior terminus, with a canal behind the terminus, rather rounded at the posterior terminus.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Philippines.

More narrow than *Solen exiguus*, Dunker.

Species 32. (Mus. Brit.)

SOLEN EXIGUUS. *Sol. testâ parvâ, pallidè fulvâ, epidermide subaureo indutâ, latiùsculâ, rectâ, ad aream medianum substrigatâ, anticè perpendiculariter truncatâ, posticè subconvexo-truncatâ.*

THE NARROW SOLEN. Shell small, pale fulvous, covered with a rather golden epidermis, rather broad, straight, a little striped on the middle area, anteriorly perpendicularly truncated, posteriorly rather convexly truncated.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Borneo.

More straight and broad than *Solen Leani*, and of equal breadth throughout.

Species 33. (Fig. *a*, *b*, Mus. Brit.)

SOLEN ASPERSUS. *Sol. testâ elongatâ, lentissimè arcuatâ, maculis purpureis vividè variegatâ, propè terminum anticum acclivi, constrictâ; margine dorsali vix excavato; margine ventrali lentè convexo.*

THE SPRINKLED SOLEN. Shell elongated, very slightly arched, brightly variegated with purple spots, sloped upwards and constricted near the anterior end; dorsal margin scarcely excavated; ventral margin slightly convex.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Australia.

The younger shell is more finely sprinkled with colour and shows the gentle curve more distinctly than when full grown.

Species 34. (Mus. Hanley.)

SOLEN ACINACES. *Sol. testâ albâ, lentè arcuatâ, breviùsculâ, anticè latiùsculâ, posticè attenuatâ; margine antico acutè et subobliquè truncato; margine postico angusto, subrotundo.*

THE SCIMITAR SOLEN. Shell white, gently curved, rather short, sloped upwards at each end, rather broad anteriorly, attenuated posteriorly; anterior margin acutely and somewhat obliquely truncated; posterior margin narrow, rather rounded.

HANLEY. Species of Shells.

Hab. —— ?

We have figured the unique specimen originally described by favour of Sylvanus Hanley, Esq.

SOLEN.

	Plate.	Species.
acinacies, *Hanley*	VII.	34
ambiguus, *Lamarck*	V.	21
aspersus, *Dunker*	VII.	33
brevis, *Gray*	II.	6
Ceylonensis, Dunker	I.	1
corneus, *Lamarck* (and Pl. VII., fig. 18 *b*.)	IV.	19
Delesserti, *Chemn.*	III.	8
ensis, *Linnæus*	I.	3
exiguus, *Dunker*	VII.	32
Fonesii, *Dunker*	VI.	29
Gaudichardi, *Chemn.*	III.	7
gracilis, *Philippi*	IV.	17
grandis, *Dunker*	II.	5
Guineenis, *Gray*	IV.	15
Jonesii, *Dunker*	III.	11
Lamarckii, *Chemnitz*	IV.	16
Leani, *Dunker*	VII.	31
linearis, *Chemnitz*	V.	22
Luzonicus, *Dunker* (and Pl. VII., fig. 20 *b*.)	V.	24
Luzonicus, Dunker	III.	12
macha, *Oken?*	VI.	28
Malaccensis, *Dunker*	IV.	20
marginatus, *Pulteny*	II.	4
obliqua ——?	V.	21
Pfeifferi, *Dunker*	VI.	26
Philippinarum, Hanley	V.	21
Philippianus, *Dunker*	III.	13
regularis, *Dunker*	VI.	30
rostriformis, *Dunker*	IV.	18
rostrum-anatis, Dunker (see Erratum)	III.	7
rudis, C. B. Adams	V.	21
scalpeum, *King*	III.	12
sicarius, *Gould*	IV.	14
Sloanii, *Gray*	III.	10
Tehuelca, Orbigny (see Erratum)		
Timorensis, *Dunker*	VI.	27
truncatus, *Sowerby*	I.	1
vagina, *Linnæus*	I.	2
vagina, Pennant	II.	4
vaginoides, *Lamarck*	V.	23
versicolor, Philippi	III.	10
viridis, *Say*	VI.	25
vitreus, *Dunker*	III.	9

ERRATUM.

Species 7, Plate III., for *rostrum-anatis*, Dunker, read, GAUDICHARDI, *Chemn.*, *Tehuelcha*, Orbigny. The fine richly coloured specimen in Mr. Hanley's collection, too late for figuring, has been identified with Mr. Dunker's species, the name of which must become a synonym.

MONOGRAPH

OF THE GENUS

ADEORBIS.

"How exquisitely minute,
A miracle of design!"—*Tennyson.*

1

2

3

4

a b

5

a b

6

a b

7

8

9

a b

10

Sowerby del et lith

Vincent Brooks Day & Son Imp.

ADEORBIS.

PLATE I.

Genus ADEORBIS, *Wood.*

Testa orbicularis, depressa, umbilicata, alba; anfractibus paucis, ultimo magno. Apertura magna, peritremate interrupto. Operculum nullum.

Shell orbicular, depressed, umbilicated, white; whorls few, last large. Aperture large, peritreme interrupted. Operculum none.

The little white shells forming this group differ from *Cyclostremæ*, principally in having a more depressed and less conical form, and in the edge of the aperture being interrupted instead of continuous. The genus was created for the little bicarinated British species. Most of the others have been collected either by Mr. Cuming in the Philippines, or Mr. Arthur Adams in Japan. But the most beautiful species is *Adeorbis Angasi* from Australia.

Species 1. (Mus. Brit.)

ADEORBIS ELEGANS. *Ade. testâ latâ, depressâ, spirâ subplanulatâ; ultimo anfractu latissimo; labio externo eleganter supernè sinuato; umbilico magno.*

THE ELEGANT ADEORBIS. Shell broad, depressed; spire rather flat; last whorl very wide; outer lip elegantly sinuous above; umbilicus large.

A. ADAMS (Cyclostrema). Proc. Zool. Soc., 1850.

Hab. Isl. St. Thomas.

Species 2. (Mus. MacAndrew.)

ADEORBIS SUBCARINATA. *Ade. testâ moderatè depressâ; spirâ paulò exsertâ; ultimo anfractu supernè subangulato, infrà bicarinato; aperturâ ovatâ; umbilico magno.*

THE LOW-KEELED ADEORBIS. Shell moderately depressed; spire a little exserted; last whorl a little angular above, with two keels below; aperture ovate; umbilicus large.

WALKER (Helix). Adeorbis carinata, *Wood.*

Hab. British Seas.

Species 3. (Mus. Crosse.)

ADEORBIS ADAMSII. *Ade. testâ valdè depressâ, sinuatim concentricè liratâ; aperturâ magnâ, obliquè oblongâ, labio externo supernè moderatè sinuato.*

ADAMS'S ADEORBIS. Shell much depressed, sinuously concentrically ridged; aperture large, oblique, oblong, outer lip moderately sinuous above.

FISCHER. Journal de Conchyliologie, 1857.

Hab. Guadaloupe.

Species 4. (Mus. Brit.)

ADEORBIS PLANA. *Ade. testâ valdè depressâ, planâ, latâ, spiraliter striatâ; umbilico maximo; aperturâ latissimâ, obliquâ.*

THE FLAT ADEORBIS. Shell much depressed, flat, broad, spirally striated; umbilicus very large; aperture very wide, oblique.

A. ADAMS (Cyclostrema). Proc. Zool. Soc., 1850.

Hab. Philippines. Japan.

Species 5. (Fig. *a*, *b*, Mus. Brit.)

ADEORBIS NITIDA. *Ade. testâ subelevatâ, solidâ; spirâ conicâ, anfractibus rotundis, distinctis; umbilico magno, circumscripto; aperturâ subrotundâ.*

THE NEAT ADEORBIS. Shell a little raised, solid; spire conical, whorls rounded, distinct; umbilicus large, defined; aperture rather round.

A. ADAMS (Cyclostrema). Proc. Zool. Soc., 1850.

Hab. Philippines.

Species 6. (Fig. *a*, *b*, Mus. Adams.)

ADEORBIS DEPRESSA. *Ade. testâ latâ, valdè depressâ, lævigatâ; spirâ subplanulatâ; anfractibus vix exsertis; umbilico mediocri; aperturâ parvâ, subovatâ.*

THE DEPRESSED ADEORBIS. Shell broad, much depressed, smooth; spire rather flat; whorls scarcely exserted; umbilicus moderate; aperture small subovate.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino-Sima, Japan.

Species 7. (Fig. *a*, *b*, Mus. Brit.)

ADEORBIS PLANORBULA. *Ade. testâ valdè depressâ; spirâ ferè planorbulâ; anfractibus rotundis, ultimo lato; umbilico maximo; aperturâ ferè rotundâ.*

THE PLANORBULAR ADEORBIS. Shell much depressed; spire nearly planourblar; whorls round, the last broad; umbilicus very large; aperture almost round.

A. ADAMS (Cyclostrema). Proc. Zool. Soc., 1850.

Hab. Philippines.

Species 8. (Mus. Adams.)

ADEORBIS TROCHULA. *Ade. testâ trochiformi, subelevatâ; spirâ conicâ, anfractibus haud prominentibus, supernè declivibus; umbilico parvo, costâ circumscriptâ; aperturâ subrotundâ.*

THE LITTLE-TOP ADEORBIS. Shell trochiform, rather elevated; spire conical, whorls not prominent, sloped above; umbilicus small, defined by a rib, aperture rather round.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Gotto Islands, Japan.

Species 9. (Mus. Brit.)

ADEORBIS ORBELLA. *Ade. testâ moderatè depressâ; spirâ depresso-conicâ; anfractibus supernè subdeclivibus; umbilico maximo, circumscripto; aperturâ obliquâ, subrotundâ.*

THE SMALL-ORB ADEORBIS. Shell moderately depressed; spire depressed, conical; whorls sloped above; umbilicus very large, defined; aperture oblique, rather round.

A. ADAMS. Ann. and Mag. Hist. Nat., 1861.

Hab. Mino-Sima, Japan.

Species 10. (Fig. *a*, *b*, Mus. Adams.)

ADEORBIS CARINATA.. *Ade. testâ depressâ, spirâ subplanatâ; anfractibus distinctis, rotundatis, ultimo versùs suturam gibboso, infrà planulato, infrà carinato; umbilico magno; aperturâ obliquè subquadratâ, infrà ad marginem externum rostratâ.*

THE KEELED ADEORBIS. Shell depressed, spire rather flattened; whorls distinct, rounded, last gibbous towards the suture, flattened below, keeled at the base; umbilicus large; aperture rather obliquely squared; beaked below at the outer edge.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Seto-Uchi, Japan.

11

12

13

a b

14

a b

15

a b

16

a b

17

18

a b

20

a b

21

19

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

ADEORBIS.

PLATE II.

Species 11. (Mus. Adams.)

ADEORBIS JAPONICA. *Ade. testâ depressâ, parvâ, lævigatâ, discoideâ; semipellucidâ, concentricè obliquè striatâ; spirâ subdiscoideâ, anfractibus lentè crescentibus, rotundis, umbilico lato, costâ validâ, marginato.*

THE JAPAN ADEORBIS. Shell depressed, small, smooth, discoidal; semipellucid, concentrically obliquely striated; spire rather discoidal, whorls slowly increasing, rounded, umbilicus wide, bordered with a strong rib.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Gotto Islands, Japan.

Species 12. (Mus. Adams.)

ADEORBIS SINENSIS. *Ade. testâ subdiscoideâ, solidâ, opacâ; striis minutissimis spiralibus et concentricis decussatâ; spirâ subplanulatâ, anfractibus regulariter crescentibus, rotundis; umbilico mediocri, aperturâ obliquè rotundatim ovato.*

THE CHINESE ADEORBIS. Shell rather discoidal, solid, opaque; decussated with very minute spiral and concentric striæ; spire rather flat, whorls regularly increasing, rounded; umbilicus moderately large, aperture obliquely rounded oval.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. China.

Species 13. (Mus. Adams.)

ADEORBIS PROMINULA. *Ade. testâ subdiaphanâ, nitidâ, striis concentricis tenuissimis sculptâ; spirâ depresso-conicâ; anfractibus vix prominentibus, rapidè crescentibus; umbilico mediocri, submarginato; aperturâ obliquâ.*

THE PROMINENT ADEORBIS. Shell rather transparent, polished, sculptured with very thin concentric striæ; spire depressed-conical; whorls scarcely prominent, rapidly increasing; umbilicus middle-sized, slightly bordered; aperture oblique.

A. ADAMS. Ann. and Mag. of Nat. Hist, 1861.

Hab. Mino-Sima, Japan.

Species 14. (Fig. *a*, *b*, Mus. Adams.)

ADEORBIS CLAUSA. *Ade. testâ discoideâ, subdiaphanâ, tenuissimè concentricè striatâ; spirâ depressâ, anfractibus vix prominentibus, supernè subplanulatis; umbilico partim callo obtecto.*

THE CLOSED ADEORBIS. Shell discoidal, rather transparent, very finely concentrically striated; spire depressed, whorls scarcely prominent, rather flattened above; umbilicus partly covered by callus.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino-Sima, Japan.

The umbilicus being partly filled up by a callus, makes it a leading species towards the genus *Teinostoma*, in which the umbilicus is entirely filled.

Species 15. (Fig. *a*, *b*, Mus. Adams.)

ADEORBIS SUTURALIS. *Ade. testâ subglobosâ, tenui, semipellucidâ, tenuissimè concentricè striatâ; spirâ subproductâ, anfractibus rapidè crescentibus; suturâ profundâ; aperturâ magnâ; umbilico parvo.*

THE SUTURED ADEORBIS. Shell subglobose, thin, semipellucid, very finely concentrically striated; spire a little produced, whorls rapidly increased; suture deep, aperture large; umbilicus small.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Tsu-Sima, Japan.

Species 16. (Fig. *a*, *b*, Mus. Adams.)

ADEORBIS CORNICULUM. *Ade. testâ globosâ, subdiaphanâ, minutissimè striatâ; spirâ parvâ, anfractibus rapidè*

crescentibus, ultimo magno, rotundo; umbilico angusto, costâ marginato; aperturâ magnâ.

THE LITTLE HORN ADEORBIS. Shell globose, a little transparent, very minutely striated; spire small, whorls rapidly increasing, last large, rounded; umbilicus narrow, bordered with a rib; aperture large.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino Sima, Japan.

Species 17. (Fig. *a*, *b*, Mus. Brit.)

ADEORBIS ANGASI. *Ade. testâ discoideâ, valdè depressâ, tenui; spirâ parvâ, planulatâ, anfractibus paucis, parvis, rapidè crescentibus, ultimo expanso, striato, ad suturam crenulato, ad peripheriam acutè carinato et conspicuè crenato; umbilico et aperturâ maximis.*

ANGAS'S ADEORBIS. Shell discoidal, much depressed, thin; spire small, flat, whorls few, small, rapidly increased, last expanded, striated, crenulated at the suture; sharply and conspicuously keeled at the periphery; umbilicus and aperture very large.

A. ADAMS. Proc. Zool. Soc., 1861.

Hab. Australia.

This beautiful little shell was collected by Mr. G. F. Angas.

Species 18. (Mus. Brit.)

ADEORBIS NANULA. *Ade. testâ depressâ, subdiscoideâ; spirâ paulò exsertâ, anfractibus rotundis, lentè crescentibus; umbilico mediocri, marginato, aperturâ subrotundâ.*

THE LITTLE DWARF ADEORBIS. Shell depressed, rather discoidal; spire a little exserted, whorls rounded, slowly increased; umbilicus moderate, bordered, aperture rather rounded.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino-Sima, Japan.

Species 19. (Mus. Adams.)

ADEORBIS SUBANGULATA. *Ade. testâ solidiùsculâ; spirâ paulò exsertâ; anfractibus subangulatis; ultimo anfractu subelevato, propè suturam gibboso, subangulato, infrà latiùsculo, obscurè angulato; umbilico profundo, angustiùsculo, margine acuto; aperturâ subovatâ, labio externo, supernè sinuatim producto.*

THE SLIGHTLY ANGULAR ADEORBIS. Shell rather solid; spire a little exserted; whorls rather angular; last whorl a little raised, gibbous and obscurely angular near the suture; umbilicus deep, rather narrow, with a sharp edge; aperture subovate, outer lip sinuously produced above.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Gotto Islands, Japan.

Species 20. (Fig. *a*, *b*, Mus. Adams.)

ADEORBIS DIAPHANA. *Ade. testâ globosâ, diaphanâ; spirâ parvâ, anfractibus rotundis; ultimo anfractu inflato; umbilico parvo; aperturâ subrotundâ.*

THE TRANSPARENT ADEORBIS. Shell globose, transparent, spire small, whorls round; last whorl inflated; umbilicus small; aperture rather round.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Gotto Islands, Japan.

Species 21. (Fig. *a*, *b*, Mus. Adams.)

ADEORBIS PATRUELIS. *Ade. testâ semipellucidâ, depressâ; spirâ paulò productâ, anfractibus obscurè biangulatis, ultimo infrà planiùsculo; umbilico angustiùsculo; aperturâ magnâ, labio columellari rectiùsculo.*

THE RELATED ADEORBIS. Shell semipellucid, depressed, spire a little produced, whorls obscurely biangular, the last rather flattened beneath; umbilicus rather narrow; aperture large, columella lip rather straight.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Mino-Sima, Japan.

Related to *Adeorbis Japonica*, but with more elate spire.

MONOGRAPH

OF THE GENUS

TEINOSTOMA.

"—— Once hid from those who search the main,
Where thousand elfin shapes abide."—*William Collins.*

1

1a

2

3a

4

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3b

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Sowerby, del et lith.

Vincent Brooks Day & Son, Imp

TEINOSTOMA.

PLATE I.

Genus TEINOSTOMA, *A. Adams.*

Testa depressa, alba, polita, solida, rarò spiraliter striata, regione umbilicali callo obtecto; aperturâ lateraliter producta, ab axe remota.

Shell depressed, white, polished, solid, rarely spirally striated; umbilical region covered by a callus; aperture laterally produced, distant from the axis.

The difference between this genus and ADEORBIS is that while shells of the former are widely umbilicated, those of the latter have the umbilicus filled up by a callus. The mouth also is laterally produced and out of axis. The localities of the few species known are as remote as Mazatlan, Japan, and the Philippines.

Species 1. (Fig. *a*, *b*, *c*, Mus. Brit.)

TEINOSTOMA AMPLECTANS. *Tei. testâ valdè depressâ, spirâ planulatâ; aperturâ productâ, labio externo subrostrato; callo crasso, rotundato.*

THE FOLDING TEINOSTOMA. Shell much depressed, spire flattened; aperture produced, outer lip rather beaked; callus thick, rounded.

CARPENTER. Cat. Mazatlan Moll., p. 253.

Hab. Mazatlan.

Next to *Teinostoma politum*, this is the most pointed at the outer lip and has the largest callus of any of the species.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

TEINOSTOMA CONCENTRICUM. *Tei. testâ depressâ, spiraliter tenuiter liratâ, supernè convexâ; umbilico callo omnino obtecto; aperturâ anticè productâ, subacuminatâ.*

THE CONCENTRIC TEINOSTOMA. Shell depressed, spirally finely ridged, convex above; umbilicus entirely hidden by a callus; aperture anteriorly produced, slightly acuminated.

A. ADAMS. Ann. and Mag. Nat. Hist., 1863.

Hab. Takano-Sima, Japan.

The only species covered with spiral striæ.

Species 3. (Fig. *a*, *b*, Mus. Brit.)

TEINOSTOMA POLITUM. *Tei. testâ valdè depressâ, politâ, supernè planulatâ; ultimo anfractu gibboso, lateraliter producto; aperturâ productâ, ovatâ, ad suturam columellamque incrassatâ; labio externo infrà medium acutè rostrato.*

THE POLISHED TEINOSTOMA. Shell much depressed, polished, flattened above; last whorl gibbous, laterally produced; aperture produced, ovate, thickened at the suture and columella; outer lip sharply beaked below the middle.

A. ADAMS. Proc. Zool. Soc., 1854.

Hab. Philippine Islands.

Species 4. (Fig. *a*, *b*, Mus. Brit.)

TEINOSTOMA SUBSTRIATUM. *Tei. testâ minimâ, nitenti, propè suturam minutissimè striatâ; callo angusto, circà rimam umbilicalem gyranti; aperturâ subrotundâ; labio interno crasso, fere anfractum penultimum amplectanti.*

THE SUBSTRIATED TEINOSTOMA. Shell very small, shining, very minutely striated near the suture; callus narrow, coiling round the umbilical rim; aperture nearly round; inner lip thick, nearly enveloping the last whorl.

CARPENTER. Cat. Mazatlan Moll., p 254.

Hab. Mazatlan.

Species 5. (Fig. *a*, *b*, Mus. Brit.)

TEINOSTOMA CARPENTIERI. *Tei. testâ valdè depressâ, spirâ ferè obtectâ; ultimo anfractu planulato, medio fissuratâ; callo umbilicati rotundo; aperturâ productâ, labio interno suprà anfractum penultimum elevato; labio externo ad medium rostrato.*

CARPENTER'S TEINOSTOMA. Shell much depressed; spire almost hidden; last whorl flattened, with a medial fissure; umbilical callus rounded; aperture produced, inner lip raised above the penultimate whorl, outer lip beaked in the middle.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1861.

Hab. Gulf of Pechili.

The suture and the apex of this shell are covered by an enamel, leaving only a little pit where the point should be.

Species 6. (Fig. *a*, *b*, Mus. Brit.)

TEINOSTOMA RADIATUM. *Tei. testâ depressâ, orbiculatâ, supernè convexiùsculâ, infrà medium planiùsculâ; lineis incrementi conspicuè concentricè liratâ; anfractibus rapidè crescentibus; aperturâ subrotundâ, anticè productâ; labio interno ad suturam incrassato, usque ad apicem elevato; callo subexcavato.*

THE RAYED TEINOSTOMA. Shell depressed, orbicular, rather convex above, rather flat below the middle; concentrically ridged with conspicuous lines of growth; aperture rather rounded, produced anteriorly; inner lip thickened at the suture, raised as far as the apex; callus somewhat excavated.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1860.

Hab. Kino-O-Sima, Japan.

Species 7. (Fig. 1, *a*, *b*, Mus. Brit.)

TEINOSTOMA LUCIDUM. *Tei. testâ orbiculari, depressâ, aperturâ subobliquâ, anticè rotundatim productâ; callo rotundo, tumido.*

THE LUCID TEINOSTOMA. Shell orbicular, depressed, aperture a little oblique, anteriorly roundly produced; callus rounded, tumid.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Japan.

Species 8. (Fig. *a*, *b*, Mus. Brit.)

TEINOSTOMA PUSILLUM. *Tei. testâ orbiculari, depressâ, minutissimè striatâ; suturâ impressâ; anfractu ultimo magno, ad peripheriam compresso; labio interno septiformi, recto.*

THE DWARF TEINOSTOMA. Shell orbicular, depressed, very minutely striated; suture impressed; last whorl large, compressed at the circumference; inner lip septiform, straight.

C. B. ADAMS. Conchological Contributions, p. 112.

Teinostoma anomalum, H. and A. Adams.

Teinostoma (calceolina) pusillum, Adams, Genera, Appendix.

Hab. U. States; Tanube, Japan.

The straight inner lip of this little species gives it the appearance of a *Neritina*.

MONOGRAPH

OF THE GENUS

BRODERIPIA.

"Your name is great in mouths of wisest censure."—*Shakspeare.*

1a

2a

2b

3a

3b

4a

4b

1b

Sowerby del et lith

Vincent Brooks Day & Son Imp.

BRODERIPIA.

PLATE I.

Genus BRODERIPIA, *Gray.*

Molluscum trachelipodum marinum.

Testa marina, patelliformis, depressa, oblonga, non-spiralis; apice postico, incurvo; aperturâ maximâ, ovatâ, intùs margaritaceâ.

Mollusc, trachelipodous, marine.

Shell marine, patelliform, depressed, oblong, nonspiral; apex posterior, incurved; aperture very large, ovate, pearly within.

The late Mr. Broderip described two shells of this small genus, including them in SCUTELLA. But although the animal is not known, the structure of the shell makes it probable that they belong to the family of the *Stomatellinæ;* and that they bear the same relation to that family as the *Ancyli* do to the *Lymneadæ.*

Two Pacific, one Philippine, and one other species, are all at present known.

Species 1. (Fig. *a. b*, Mus. Brit.)

BRODERIPIA ROSEA. *Bro. testâ parvâ, minutissimè striatâ, ovatâ, depressâ, dorso arcuatâ, lineis flammulisque rubris subreticulatim pictâ; apice post marginem posticum producto; nacreâ intùs tenuissimâ.*

THE ROSY BRODERIPIA. Shell small, very finely striated, ovate, depressed, back arched, painted network-like with red lines and flames; apex produced beyond the posterior margin, pearl very thin within.

BRODERIP (Scutella). Proc. Zool. Soc., 1834.

Hab. Grimwood's Island, Pacific.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

BRODERIPIA CUMINGII. *Bro. testâ subquadratâ, subconicâ, depressâ, minutè granulatâ, fasciis rubris propè marginem radiatâ; apice propè marginem posticum declinato; margine columellari intùs subseptiformi.*

CUMING'S BRODERIPIA. Shell subquadrate, subconical, depressed, minutely granular, rayed with red bands towards the margin; apex sloped near the posterior margin; columellar margin rather septiform within.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. Capul, Philippines.

The shell from which our figure was originally drawn was unfortunately lost from Mr. Cuming's collection, but a drawing is preserved and an inferior specimen remains.

Species 3. (Fig. *a*, *b*, Mus. Brit.)

BRODERIPIA NITIDISSIMA. *Bro. testâ depresso-conicâ, ovatâ, intùs pallidè purpureâ, vividè iridescenti, extùs fumoso-fuscâ, costis regularibus, crassis radiatâ; margine dentato; apice paulò post-mediani.*

THE BRIGHT BRODERIPIA. Shell depressed-conical, ovate, pale purple within, brightly iridescent, smoky-brown without, rayed with regular, thick ribs; margin toothed; apex a little behind the centre.

DESHAYES. Conchyliologie de l'Isle de la Réunion, p. 69.

Hab. Bourbon.

The only species with radiating ribs and correspondingly toothed margin.

Species 4. (Fig. *a*, *b*, Mus. Brit.)

BRODERIPIA IRIDESCENS. *Bro. testâ tenui, ovato-oblongâ, depressâ, intùs vividè iridescenti, rubro pallidè reticulatâ; extùs pallidè fulvâ roseo vividè obliquè reticulato.*

THE IRIDESCENT BRODERIPIA. Shell thin, ovate-oblong, depressed, brightly iridescent within, reticulated with pale red; pale fulvous without, brightly obliquely reticulated with red.

BRODERIP (Scutella). Proc. Zool. Soc., 1834.

Hab. Grimwood's Island, Pacific.

MONOGRAPH

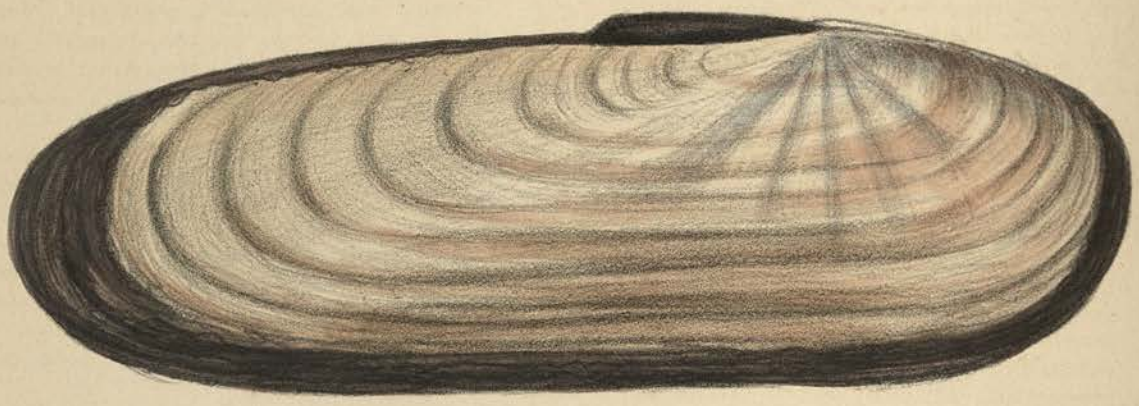
OF THE GENUS

CULTELLUS.

"How full the earth, and sea, and air!
How great Thy love! what constant care
Of all the host is shown."—*Anon.*

1a

1b



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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

CULTELLUS.

PLATE I.

Genus CULTELLUS, *Schumacher.*

Testa transversè oblonga, inæquilateralis, æquivalvis, utrinque hians, rotunda, umbonibus anticis, interdum paulò arcuata; interdum costâ umbonali internâ minuta. Dentes in unâ valvâ duo, in alterâ valvâ tres. Ligamentum externum, elongatum.

Shell transversely oblong, inequilateral, equivalve, gaping at each end, rounded, with anterior umbones, sometimes a little curved, sometimes provided with an internal umbonal rib. Teeth two in one valve, and three in the other. Ligament external, elongated.

Syn. Macha, Conrad.—*Siliqua*, Muhlfeldi.—*Leguminum*, Chemnitz.

Uniting the group represented by *Solen Cultellus*, and that represented by *Solen radiatus*, the latter having an internal umbonal bar or rib, in one genus, we have all the *Solenidæ*, excepting *S. legumen*, divided into three genera—viz., SOLEN, including the razor shells, whether straight or curved, with the beaks terminal; CULTELLUS, including SILIQUA, or the "*radiata*" group, which, with or without the internal rib, having the beaks near one end, or at least nearer than the middle, and SOLECURTUS, including MACHA, SILIQUARIA, NOVACULINA and PHARELLA, having the beaks central or nearly so.

Like true *Solens*, the species of *Cultellus* are found in the sands of nearly all climates.

Species 1. (Mus. Brit.)

CULTELLUS LIVIDUS. *Cul. testâ elongatâ, arcuatâ, compressâ, lividi-purpurascenti, maculis fuscis aspersâ, posticè attenuatâ, subacuminatâ, margine terminali antico perelevato; ligamento breviusculo.*

THE LIVID CULTELLUS. Shell elongated, curved, compressed, livid-purplish, sprinkled with brown spots; posteriorly attenuated, subacuminated, anterior terminal margin much raised; ligament short.

DUNKER. Proc. Zool. Soc., 1861.

Cultellus marmoratus, Dunker.

Hab. Isl. Luzon, Philippines.

The small semipellucid shell described as *C. marmoratus*, is evidently the same with *C. lividus* in a young state.

Species 2. (Mus. Sowerby.)

CULTELLUS LACTEUS. *Cul. testâ magnâ, compressâ, lævigatâ, albidâ, rectiusculâ, intùs subumbonis costâ munitâ, extùs epidermide crassâ indutâ; latere antico ante umbones producto, rotundatim subacuminato; latere postico elongato, ad terminum rotundo; margine ventrali recto; ligamento maximo.*

THE MILK-WHITE CULTELLUS. Shell large, compressed, smooth, whitish, rather straight, strengthened with a rib inside, under the umbones, covered with a thick epidermis outside; anterior side produced in front of the umbones, roundly subacuminated; posterior side elongated, rounded at the end; ventral margin straight; ligament very large.

SPENGLER.

Cultellus orientalis, Dunker.

Hab. Malacca.

Species 3. (Mus. Brit.)

CULTELLUS MAXIMUS. *Cul. testâ tenui, compressâ, paulò arcuatâ, albâ, epidermide fulvâ indutâ, intùs costâ munitâ; latere postico brevi, in areâ complanatâ et margine reflexo terminanti, post aream concentricè rugatâ; latere postico elongato, areâ dorsali medio arcuatim depresso.*

THE VERY LARGE CULTELLUS. Shell thin, compressed, a little curved, white, covered with a yellow epidermis, strengthened inside with a rib; posterior side short, ending in a flattened area and reflected margin, concentrically wrinkled behind the area; posterior side elongated, dorsal area depressed by a curve in the middle.

GMELIN. Linn. Syst. Nat.

Hab. Malacca.

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7a

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7b

Sowerby del et lith

Vincent Brooks Day & Son Imp.

CULTELLUS

PLATE II.

Species 4. (Mus. Brit.)

CULTELLUS PELLUCIDUS. *Cul. testâ parvâ, tenui, semi-pellucidâ, elongatâ, arcuatâ, antè umbonem brevissimâ; areâ posticâ paulò elevatâ; margine dorsali vix arcuato; margine ventrali utrinquè sursùm acclivi; marginibus terminalibus subrotundis.*

THE PELLUCID CULTELLUS. Shell small, thin, semi-pellucid, elongated, arched, very short in front of the umbo, posterior area a little raised; dorsal margin scarcely arched, ventral margin sloped upwards on each side; terminal margins rather rounded.

PENNANT. Zool. Brit., vol. iv. Pl. 46, f. 23.

Solen pygmæus, Lamarck.

Solen minutus, Montagu.

Hab. British coasts.

Species 5. (Mus. Brit.)

CULTELLUS HANLEYI. *Cul. testâ elongatâ, compressâ, utrinquè paulò hianti, rectiùsculâ, albidâ, anticè posticèque concentricè rugatâ; latere antico brevi, margine dorsali excavato, margine terminali subquadrato; latere postico elongato, margine dorsali recto, areâ angustissimâ, margine terminali subrotundo.*

HANLEY'S CULTELLUS. Shell elongated, compressed, a little gaping at each end, rather straight, whitish, anteriorly and posteriorly concentrically wrinkled; anterior side short, dorsal margin excavated, terminal margin rather square; posterior side elongated, dorsal margin straight, with very narrow area, terminal margin rather rounded.

DUNKER. Proc. Zool. Soc., 1861.

Hab. ——?

Described in the Proceedings of the Zoological Society from a specimen in the late Mr. Cuming's collection without stated locality.

Species 6. (Mus. Brit.)

CULTELLUS POLITUS. *Cul. testâ rectâ, depressâ, anticè hianti, fuscâ, epidermide tenui, politâ indutâ; umbonibus subterminalibus, margine antico elevato, reflexo; areâ posticâ albâ, elongatâ, margine terminali subtruncato; areâ dorsali angustâ, rectâ; margine ventrali recto.*

THE POLISHED CULTELLUS. Shell straight, depressed, anteriorly gaping, brown, covered with a thin polished epidermis; umboes nearly terminal, anterior margin elevated, reflected, posterior area white, elongated; terminal margin subtruncated; dorsal area narrow, straight, ventral margin straight.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Mouths of the river Gambia.

A peculiarly straight looking species, with umboes nearly terminal and edges curiously reflected.

Species 7. (Fig. *a*, *b*, Mus. Brit.)

CULTELLUS CUMINGIANUS. *Cul. testâ latiùsculâ, breviùsculâ, arcuatâ, fusco-purpureâ, sparsim supernè punctato et maculato; umbonibus terminalibus, margine antico obliquè retrorso; margine ventrali utrinquè acclivi; margine postico obtuso; margine dorsali subarcuatim depresso.*

CUMING'S CULTELLUS. Shell rather broad, short, arched, purple-brown, sparingly dotted and spotted with purple above; umboes terminal, anterior margin obliquely turned backwards; ventral margin sloped upwards at each end; posterior margin obtuse; dorsal margin a little arched and depressed.

DUNKER. Proc. Zool. Soc., 1861.

Cultellus concinnus, Dunker.

Hab. Isl. Zebu, Philippines.

Short, deep, and square at the ends.

Species 8. (Mus. Brit.)

CULTELLUS ATTENUATUS. *Cul. testâ depressâ, tenui, albidâ, epidermide tenuissimo indutâ; latere antico antè umbones breviùsculo, elevato, rotundo; latere postico attenuato, elongato, ad terminum subacuminato.*

THE ATTENUATED CULTELLUS. Shell depressed, thin, whitish, covered with a very thin epidermis; anterior side rather short in front of the umboes, raised, rounded; posterior side attenuated, elongated, rather acuminated at the end.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Philippines.

Species 9. (Mus. Brit.)

CULTELLUS SUBELLIPTICUS. *Cul. testâ depressâ, tenui, brevi, ovatâ, albâ; latere antico breviùsculo, angusto; latere postico lato, marginibus dorsali ventralique convexis.*

THE SUBELLIPTIC CULTELLUS. Shell depressed, thin, short, ovate, white; anterior side rather short, narrow; posterior side broad, with dorsal and ventral margins convex.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Singapore. Staits of Malacca.

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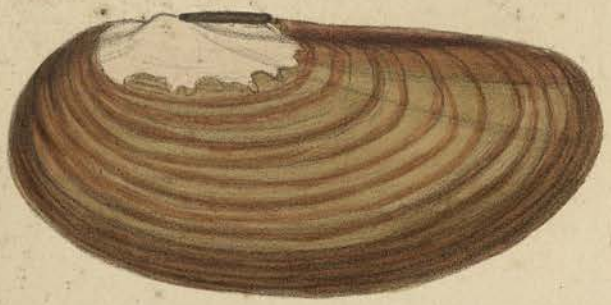

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10 a

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

CULTELLUS.

PLATE III.

(Fig. 8.) Species 20. (Mus. Brit.)

CULTELLUS COSTATUS. *Cul. testâ magnâ, ventricosâ, obliquâ, propè umbones aurantiâ, purpureo nebulatâ, epidermide fusco subviridi nitenti indutâ, intùs infrà umbonem unicostatâ; latere antico brevi, subrotundata; latere postico elongato, hianti, inflato, margine dorsali brevi, subexcavato; cardine magno, margine laterali suprà declivi, infrà rotundatim producto.*

THE RIBBED CULTELLUS. Shell large, ventricose, oblique, orange near the umboes, clouded with purple; covered with a greenish-brown, shining epidermis; with a rib inside under the umbo; anterior side short, rather rounded; posterior side elongated, gaping, inflated, dorsal margin short, slightly excavated; hinge large, lateral margin sloped above, roundly produced below.

SAY. American Marine Conchology.

Hab. North America, Cape Krüsenstern.

(Fig. 9.) Species 21. (Mus. Brit.)

CULTELLUS MEDIUS. *Cul. testâ subcompressâ, oblongo-ellipticâ, utrinquè hianti, epidermide crasso, subviridi, nitenti indutâ; intùs costâ validâ infrà umbonem utrâque valvâ munitâ, latero antico brevi, semiovatâ; latere postico oblongo, margine dorsali rectiùsculo; margine terminali subtruncato, margine ventrali convexo, ad terminum sursùm acclivi.*

THE MEDIUM CULTELLUS. Shell rather compressed, oblong-elliptical, gaping at each end, covered with a thick, greenish, shining epidermis; fortified within by a strong rib under the umbo in each valve; anterior side short, semi-ovate; posterior side oblong, dorsal margin rather straight; terminal margin rather truncated, ventral margin convex, sloped upwards at the end.

GRAY. Zool. Beechy Voy., Pl. 44, f. 2.

Machieria nitida, Gould.

Hab. North America.

Species 10. (Mus. Brit.)

CULTELLUS WINTERIANUS. *Cul. testâ oblongâ, subovatâ, depressâ subcæruleo-albâ, epidermide tenui indutâ, intùs costâ validâ infrà umbonem utrâque valvâ munitâ, latere antico brevi, altâ, subrotundâ, margine dorsali declivi; latere postico subattenuato, ad terminum subacuminato, margine ventrali rectiùsculo.*

WINTER'S CULTELLUS. Shell oblong, rather ovate, depressed, bluish-white; covered with a thin epidermis, fortified inside with a strong rib under the umbo in each valve; anterior side short, high, rather rounded, dorsal margin sloped; posterior side a little attenuated, rather acuminated at the end, ventral margin rather straight.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Java.

This species has a little of the shape of a Donax.

Species 11. (Mus. Brit.)

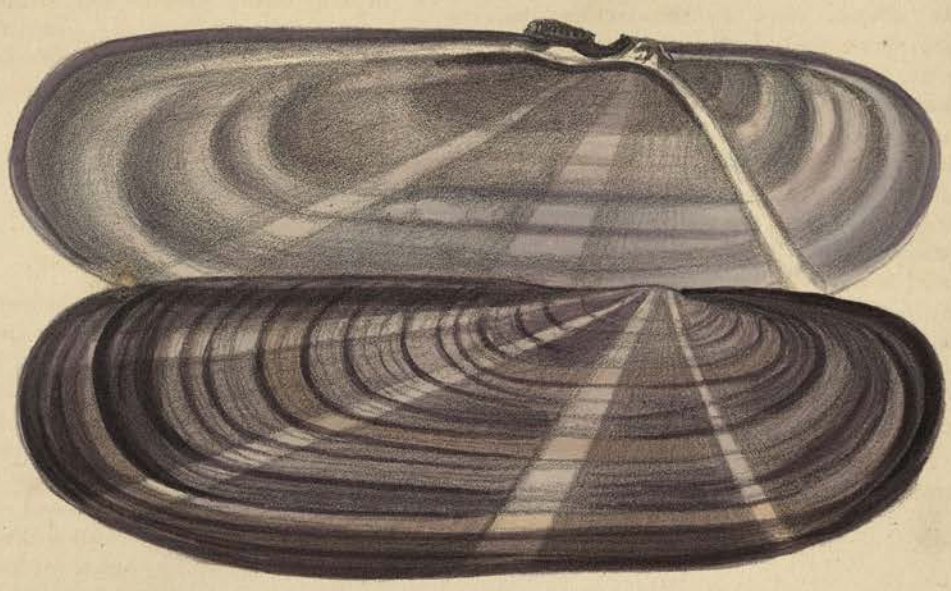
CULTELLUS NUTTALI. *Cul. testâ magnâ, ellipticâ, compressâ; albidâ, purpureo ab umbonibus radiatâ; epidermide crasso, nitenti indutâ, intùs costâ validâ munitâ; latere antico breviùsculo, subacuminato; latere postico elongato, ad terminum subtruncato.*

NUTTAL'S CULTELLUS. Shell large, elliptic, compressed; whitish, rayed with purple from the umboes, covered with a thick shining epidermis, fortified inside with a strong rib; anterior side rather short, rather acuminated; posterior side elongated, rather truncated at the end.

CONRAD. Journ. Acad. Nat. Hist. Phil., v. 7.

Hab. North America.

12



13

14

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

CULTELLUS.

PLATE IV.

Species 12. (Mus. Brit.)

CULTELLUS GRANDIS. *Cul. testâ magnâ, compressâ, utrinquè hianti, albidâ, purpureo radiatâ, epidermide crassi, subviridi, nitenti indutâ; intùs costâ solidâ, obliquâ, infrà umbonem utrâque valvâ munitâ; latere antico brevi, rotundo; medio paulò excavato, margine ventrali concavo; latere postico expanso, producto, subinflato; margine terminali truncato; margine dorsali compresso, elevato, propè umbones excavato.*

THE LARGE CULTELLUS. Shell large, compressed, gaping at both ends, whitish, rayed with purple, covered with a thick, greenish, shining epidermis; fortified inside with a solid oblique rib under the umbo in each valve; anterior side short, rounded; middle a little excavated, ventral margin concave; posterior side expanded, produced, rather inflated; terminal margin truncated, dorsal margin compressed, elevated, excavated near the umboes.

GMELIN. Linn. Syst. Nat.

Hab. Arctic regions.

Species 13. (Mus. Brit.)

CULTELLUS RADIATUS. *Cul. testâ elongatâ, compressâ, tenui, purpureo latè radiatâ et concentricè fasciatâ, utrinquè hianti, intùs costâ albâ, validâ, obliquâ infrà umbonem utrâque valvâ munitâ; latere antico breviùsculo, propè umbones excavato; latere postico elongato; margine dorsali utrinquè rectiùsculo, margine ventrali convexo, arcuato, utrinquè versùs terminus acclivi.*

THE RAYED CULTELLUS. Shell elongated, compressed, thin, broadly rayed and concentrically banded with purple; gaping at each end, fortified inside with a strong, white, oblique rib under the umbo in each valve; anterior side rather short, excavated near the umboes; posterior side elongated; dorsal margin rather straight on both sides, ventral margin convex, arched, sloping upward towards the end on each side.

LINNÆUS. Systema Naturæ.

Hab. Sumatra.

Species 14. (Mus. Brit.)

CULTELLUS ROSTRATUS. *Cul. testâ magnâ, compressâ, latâ, elongatâ, obscurè purpureo radiatâ; epidermide crasso subviridi indutâ, intùs costâ validâ munitâ; latere antico breviùsculo, semiovato; latere postico attenuato, versùs terminum angustato, ad terminum latè truncato, margine dorsali compresso.*

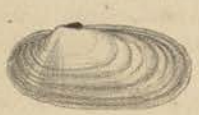
THE BEAKED CULTELLUS. Shell large, compressed, broad, elongated, obscurely rayed with purple, covered with a thick greenish epidermis, fortified within by a strong rib; anterior side rather short, semiovate; posterior side attenuated, narrowed towards the end, broadly truncated at the end; dorsal margin compressed.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Arctic regions.

It may be seen at once that this species, although bearing a general resemblance to *Cultellus grandis*, differs from it in the posterior side tapering towards the end, instead of being expanded and inflated.

15 a



16

17

15 b

18

19

10 b

Sowerby, del et lith.

Vincent Brooks Day & Son, Imp.

CULTELLUS.

PLATE V.

Species 15. (Fig. *a*, *b*, Mus. Sowerby.)

CULTELLUS JAPONICUS. *Cul. testâ tenui, ovatâ, pallidè subfuscâ, purpureo radiatâ et concentricè fasciatâ, intùs costâ albâ validâ infrà umbonem in utrâque valvâ munitâ; latere antico breviùsculo; latere postico magis producto, propè marginem dorsalem compresso, sulcato; margine ventrali convexo, vix medio contracto.*

THE JAPAN CULTELLUS. Shell thin, ovate, pale brownish, rayed and concentrically banded with purple, strengthened within by a strong white rib under the umbo in each valve; anterior side rather short; posterior side more produced, compressed near the dorsal margin, with a groove; ventral margin convex, hardly contracted in the middle.

DUNKER. Proc. Zool. Soc., 1861.

Siliqua pulcher, Dunker.

Hab. Eastern seas.

The specimens of Mr. Dunker's *Siliqua pulcher*, seem to me to represent the young state of his *S. Japonica*. It is longer in form, but it has the same groove concurrent with the dorsal margin.

Species 16. (Mus. Brit.)

CULTELLUS ALBIDUS. *Cul. testâ parvâ, subelliptică, albâ, semipellucidâ; latere antico brevi; latere postico oblongo, margine dorsali convexo; margine ventrali medio vix contracto.*

THE WHITISH CULTELLUS. Shell small, subelliptic, white, semipellucid; anterior side short; posterior side oblong, dorsal margin convex; ventral margin scarcely contracted.

DUNKER ——?

Hab. Catanuan, Philippines.

Species 17. (Mus. Brit.)

CULTELLUS GRAYANUS. *Cul. testâ tenui, elongatâ, epidermide tenuissimo indutâ, costâ intùs munitâ, obscurè purpureo radiatâ; latere antico brevi; latere postico producto, margine dorsali elevato, compresso.*

GRAY'S CULTELLUS. Shell thin, elongated, covered with a very thin epidermis, strengthened with a rib inside, rayed with dull purple, anterior side short; posterior side produced, dorsal margin elevated, compressed.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Ceylon.

Species 18. (Mus. Brit.)

CULTELLUS SUBSULCATUS. *Cul. testâ elliptică, tenui, obscurè purpureo fasciatâ; intùs costâ solidâ munitâ; latere antico brevi, rotundo; latere postico obliquo, elongato, propè marginem dorsalem lev e sulcato; margine ventrali convexo.*

THE SLIGHTLY-GROOVED CULTELLUS. Shell elliptic, thin, banded with dull purple; strengthened within by a solid rib; anterior side short, rounded; posterior side oblique, elongated, slightly grooved near the dorsal margin; ventral margin convex.

SOWERBY.

Hab. ——?

This shell is named in the British Museum collection *S. costatus* var., but it is unlike the larger representatives of that species. It has the same peculiar groove-like depression parallel with the dorsal margin that distinguishes *C. Japonica*, but it is much more inequilateral.

Species 19. (Mus. Brit.)

CULTELLUS BELCHERI. *Cul. testâ elongatâ, compressâ, subcuneiformi, pallidè purpureo radiatâ, epidermide subviridi-fusco indutâ; intùs costâ validâ infrâ umbonem in utrâque valvâ munitâ; latere antico brevissimo; latere postico attenuato, acclivi.*

BELCHER'S CULTELLUS. Shell elongated, compressed; a little wedge-shaped, rayed with pale purple, covered with a greenish-brown epidermis; fortified inside with a strong rib under the umbo in each valve; anterior side very short; posterior side attenuated, sloped.

GRAY. ——? MS. in Brit. Mus.

Hab. —— ?

Fig. 10. *b.*

CULTELLUS WINTERIANUS, *Dunker*, var. Species 10, Pl. III.

22

23a

23b

24

25

26

9b

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

CULTELLUS.

PLATE VI.

Species 20. (Mus. Brit.)

CULTELLUS COSTATUS. See Plate III. Fig. 8.

Species 21. (Fig. 9, *b*, Mus. Brit.)

CULTELLUS MEDIUS, var. See Plate III. Fig. 9.

Species 22. (Mus. Brit.)

CULTELLUS VITREUS. *Cul. testâ parvâ, semipellucidâ, oblongâ, lentissimè arcuatâ; latere antico brevi, rotundo; margine ventrali æqualiter convexo.*

THE GLASSY CULTELLUS. Shell small, semipellucid, oblong, very slightly arched; anterior side short, rounded; ventral margin equally convex.

BOISSY. MS. Brit. Mus.

Hab. Singapore.

This little glassy species somewhat resembles the British *C. pellucidus*.

Species 23. (Fig. *a*, *b*.)

CULTELLUS CULTELLUS. *Cul. testâ acieformi, arcuatâ, post-medium latâ, ante-medium attenuatâ, terminis utrinquè acclivibus; pallidâ, sparsim maculis purpureis aspersâ; mbonibus ferè terminalibus.*

THE LITTLE CUTLAS CULTELLUS. Shell scimitar-shaped, arched, broad past the middle, attenuated before the middle, sloping upwards at both ends; pale, sprinkled sparingly with purple spots; umbones almost terminal.

LINNÆUS (Solen). Syst. Naturæ.

Cultellus Australis, Dunker.

Hab. Port Essington, Australia.

In *Cultellus lividus* the greatest breadth is before the middle; in the present, which is the typical species, the greatest width is behind the middle.

Species 24. (Mus. Brit.)

CULTELLUS OVALIS. *Cul. testâ elongato-ovatâ, subventricosâ, aureo-subviridè, utrinquè versùs terminos grisescenti; latere antico producto, subacuminato; latere postico oblongo, obtusè subtruncato; margine ventrali convexo; margine dorsali paulò declivi.*

THE OVAL CULTELLUS. Shell elongate, oval, subventricose, greenish gold, greyish on both sides towards the ends; anterior side produced, rather acuminated; posterior side oblong, obtusely truncated; ventral margin convex; dorsal margin a little sloped.

DUNKER ——? MS. Brit. Mus.

Hab. Singapore.

Larger and more ovate than *Cultellus medius*.

Species 25. (Mus. Sowerby.)

CULTELLUS SCALPELLUM. *Cul. testâ elongatâ, tenui, epidermide nitenti, subviridi, indutâ; latere antico producto, rotundo; latere postico elongato, attenuato, acuminato; margine dorsali recto; margine ventrali convexo, utrinquè acclivi.*

THE SCALPEL CULTELLUS. Shell elongated, covered with a thin, shining, greenish epidermis; anterior side produced, rounded; posterior side elongated, attenuated, acuminated; dorsal margin straight; ventral margin convex, sloped upwards at each end.

SOWERBY.

Hab. Red Sea.

Of the general form and aspect of *Cultellus cultellus*, but with the anterior end produced as in *Cultellus ovatus*.

Species 26. (Mus. Sowerby.)

CULTELLUS LUCIDUS. *Cul. testâ compressâ, ovatâ, tenui, epidermide nitenti, flavidò-subviridi indutâ, fasciis purpureis latis radiatâ; ad terminum posticum subtruncatâ; margine dorsali post umbones convexâ, areâ submarginali compressâ.*

THE LUCID CULTELLUS. Shell compressed, ovate, thin, covered with a shining, thin, yellow-greenish epidermis, rayed with broad purple bands; partly truncated at the hinder extremity; dorsal margin convex behind the umbones, with a submarginal compressed area.

CONRAD —— ? MS. Brit. Mus.

Hab. —— ?

7 c

27

28 a

28 b

29

30

Sowerby del et lith

Vincent Brooks Day & Son Imp.

CULTELLUS.

PLATE VII.

(Fig. 7, *c*, Mus. Brit.)

CULTELLUS CUMINGIANUS, var. See Plate II.

Species 27. (Mus. Brit.)

CULTELLUS OLIVACEUS. *Cul. testâ elongatâ, subcompressâ, epidermide fusco-flavescenti, medio lævigatâ, versùs terminos rugatâ indutâ; latere antico oblongo, ad terminum rotundo; latere postico subattenuato; ad terminum subacuminato; margine ventrali rectiùsculo; margine dorsali-postico arcuatim subdeclivi.*

THE OLIVACEOUS CULTELLUS. Shell elongated, subcompressed, covered with a yellowish-brown epidermis, smooth in the middle, wrinkled at each end; anterior side oblong, rounded at the end; posterior side rather attenuated, rather acuminated at the end; ventral margin rather straight; posterior dorsal margin sloped downwards in a curve.

METCALFE —— ? MS. in Brit. Mus.

Hab. —— ?

Species 28. (Fig. *a*, *b*, Mus. Brit.)

CULTELLUS JAVANICUS. *Cul. testâ tenui, compressâ, attenuatâ; epidermide tenui, pallidè olivaceâ indutâ; latere antico producto, breviùsculo, rugato; latere postico obliquo, arcuato, ad terminum acclivi, acuminato; margine ventrali medio subcontracto.*

THE JAVA CULTELLUS. Shell thin, compressed, attenuated; covered with a thin, pale-olive epidermis; anterior side produced, rather short, wrinkled; posterior side oblique, curved, sloped upwards at the end, acuminated; ventral margin a little contracted in the middle.

LAMARCK. Anim. s. Vert.

Pharella Javanica, Adams.

Hab. Java.

Species 29. (Mus. Brit.)

CULTELLUS ACUMINATUS. *Cul. testâ elongatâ, subattenuatâ, tenuiùsculâ, albidâ, epidermide tenui, olivaceo; margine dorsali rectiùsculo, margine ventrali antice et post-medium convexo, medio contracto, versùs terminum posticum acclivi, ad terminum elevato, acuminato; latere antico breviùsculo.*

THE ACUMINATED CULTELLUS. Shell elongated, somewhat attenuated, rather thin, whitish, epidermis thin, olivaceous; dorsal margin rather straight, ventral margin convex before and behind the middle, contracted in the middle, sloped upwards towards the posterior end, raised at the end, acuminated; anterior side rather short.

HANLEY (Solen). Proc. Zool. Soc., 1842.

Hab. India.

This species is deeper than *Cultellus Javanicus*, and more acuminated at the end.

Species 30. (Mus. Brit.)

CULTELLUS TENUIS. *Cul. testâ elongatâ, valdè compressâ, tenui, rectiùsculâ, epidermide subaureâ, ad aream posticam ferè evanidâ indutâ; latere antico brevissimo, margine terminali elevato, subreflexo; latere postico elongato, subexpanso, ad terminum truncato.*

THE THIN CULTELLUS. Shell elongated, much compressed, thin, rather straight, covered with a rather golden epidermis, almost disappearing at the posterior area; anterior side very short, with terminal margin raised and partly reflected; posterior side elongated, rather expanded, truncated at the end.

GRAY in Griffith's Cuvier, Tab. 31, fig. 4.

Hab. Africa.

A singularly shaped shell with a peculiar turn outwards of its elevated anterior termination.

CULTELLUS.

	Plate.	Species.
albidus, *Dunker*	V.	16
acuminatus, *Hanley*	VII.	29
attenuatus, *Dunker*	II.	8
Australis —— ?	VI.	23
Belcheri, *Gray*	V.	19
concinnus, Dunker	II.	7
costatus, *Say*	III.	20
cultellus, *Linnæus*	VI.	23
Cumingianus, *Dunker*	II.	7
grandis, *Gmelin*	IV.	12
Grayanus, *Dunker*	V.	17
Hanleyi, *Dunker*	II.	5
Japonicus, *Dunker*	V.	15
Javanicus, *Lamarck*	VII.	28
lacteus, *Spengler*	I.	2
lividus, *Dunker*	I.	1
lucidus, *Conrad*	VI.	26
Marmoratus, Dunker	I.	1
maximus, *Gmelin*	I.	3
medius, *Gray* (and Pl. VI., fig 9 *b*.)	III.	21
minutus, Montagu	II.	4
Nuttali, *Conrad*	III.	11
olivaceus, *Metcalfe*	VII.	27
orientalis, Dunker	I.	2
ovalis, *Dunker*	VI.	24
pellucidus, *Pennant*	II.	4
politus, *Dunker*	II.	6
pygmæus, Lamarck	II.	4
radiatus, *Linnæus*	IV.	13
rostratus, *Dunker*	IV.	14
scalpellum, *Sowerby*	VI.	25
pulcher, Dunker	V.	15
subellipticus, *Dunker*	II.	9
subsulcatus, *Sowerby*	V.	18
tenuis, *Gray*	VII.	30
vitreus, *Boissy*	VI.	22
Winterianus, *Dunker*	III. V.	10

MONOGRAPH

OF THE GENUS

CYCLOSTREMA.

"All which are made with wondrous wise respect,
And all with admirable beauty deckt."—*Spenser.*

1a

2

3

1b

4a

4b

5

6a

6b

7

Sowerby del et lith.

Vincent Brooks Day & Son Imp

CYCLOSTREMA.

PLATE I.

Genus CYCLOSTREMA, *Maryatt.*

Testa orbiculata, depressa, latè umbilicata; spira parva, anfractibus spiraliter et concentricè, plus minusvè lirata vel sulcata. Apertura integra, haud nacrea, margine acuto.

Shell orbicular, depressed, broadly umbilicated; spire small, whorls spirally and concentrically ridged or sulcated. Aperture entire, not pearly, margin acute.

Some of the smaller species of *Delphinula* resemble these little shells, which, with *Adeorbis* and the subgenera of both make a natural group. The difference between the two genera is that *Cyclostrema* has more external sculpture and a wide umbilicus, which in *Adeorbis* is wanting. Of the twenty-three species included in this genus and its subgenera *Daronia*, *Tubiola*, *Microtheca*, and *Morchia*, a dozen were found by Mr. Arthur Adams on the coasts of Japan, half-a-dozen more were collected by the late Mr. Cuming amongst the Philippines, leaving five or six for such widely distant localities as Britain and Australia, China and California, &c.

Species 1. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA CINGULIFERA. *Cyc. testâ orbiculari, depressâ, anfractibus rapidè crescentibus, ultimo carinis sex acutissimis, prominentibus cincto; umbilico lato, plano; aperturâ rotundâ, margine externo supernè laqueato.*

THE BELTED CYCLOSTREMA. Shell orbicular, depressed, whorls quickly increasing, the last encircled with six prominent, very sharp ribs; umbilicus wide, flat; aperture rounded, outer margin fluted.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Isl. of Negroes, Philippines. Japan.

Species 2. (Mus. Brit.)

CYCLOSTREMA EXCAVATA. *Cyc. testâ complanatâ, minutissimè spiraliter striatâ; anfractibus rapidè crescentibus, ultimo anfractu infrà angulato, complanato; umbilico lato; aperturâ obliquâ, margine tenui.*

THE EXCAVATED CYCLOSTREMA. Shell flattened, very minutely spirally striated; whorls rapidly increasing, last whorl angular, flattened beneath; umbilicus broad; aperture oblique, margin thin.

CARPENTER. Proc. Zool. Soc., 1850.

Hab. China Seas.

Species 3. (Mus. Brit.)

CYCLOSTREMA SULCATA. *Cyc. testâ orbiculari, depressâ, regulariter spiraliter sulcatâ; spirâ valdè depressâ; ultimo anfractu lato; umbilico latissimo, sulcato; aperturâ ferè rotundâ.*

THE SULCATED CYCLOSTREMA. Shell orbicular, depressed, regularly spirally sulcated; spire much depressed; last whorl broad; umbilicus very wide, grooved; aperture nearly round.

A. ADAMS. Proc. Zool. Soc., 1850.

Hab. Philippines. Japan.

Species 4. (Fig. *a*, *b*, Mus. Crosse.)

CYCLOSTREMA VERRAUXII. *Cyc. testâ orbiculatâ, depressâ, spirâ parvâ, anfractibus subquadratis, rapidè crescentibus; ultimo anfractu tricarinato, carinâ medianâ prominenti, ad aperturam in lobam linguiformem productâ; umbilico mediocri, planato; aperturâ magnâ, labio externo infrà angulato, medio lingulatim producto.*

VERRAUX'S CYCLOSTREMA. Shell orbicular, depressed, spire small, whorls rather square, rapidly

increasing; last whorl three-keeled; middle keel prominent, produced at the aperture into a tongue-shaped lobe; umbilicus middle-sized, flattened; aperture large, outer lip angular below, with tongue-shaped projection in the middle.

FISCHER (Adeorbis). Journ. de Conch., pl. 10, f. 13.

Hab. California.

Species 5. (Mus. Adams.)

CYCLOSTREMA ANAGLYPTA. *Cyc. testâ trochiformi, solidâ; spirâ exsertâ; ultimo anfractu carinis moniliformibus tribus cincto, umbilico lato, planato; aperturâ rotundâ, labio externo extùs crenulato.*

THE CHASED CYCLOSTREMA. Shell trochiform, solid; spire exserted; last whorl encircled with three beaded keels, umbilicus broad, flattened; aperture rounded, outer lip crenulated outside.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Seto-Uchi, Japan.

Species 6. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA CANCELLATA. *Cyc. testâ sublenticulari, depressâ; spirâ planulatâ; ultimo unfractu magno, medio carinato, suprâ infrâque carinam costis validis concentricis et liris interstitialibus spiralibus cancellatâ; aperturâ magnâ; umbilico mediocri.*

THE CANCELLATED CYCLOSTREMA. Shell sublenticular, depressed, spire flattened; last whorl large, keeled in the middle, cancellated above and below the keel with strong concentric ribs and interstitial spiral ridges; aperture large; umbilicus middle-sized.

MARYATT. Trans. Linn. Soc., 1818.

Hab. West Indies. Philippines.

Species 7. (Fig. *a*, *b*, Mus. Adams.)

CYCLOSTREMA BIPORCATA. *Cyc. testâ orbiculato-depressâ; spirâ planulatâ; ultimo anfractu depresso, acutè bicarinato, carinâ inferiori magis prominenti; aperturâ subrotundâ; labio externo bilobato; umbilico parviùsculo.*

THE TWO-RIDGED CYCLOSTREMA. Shell orbicularly depressed; spire flattened; last whorl depressed, with two sharp keels, the lower keel more prominent; aperture rather rounded; outer lip two-lobed; umbilicus rather small.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Seto-Uchi, Japan.

8

9

10

11 *a*

12 *a*

12 *b*

11 *b*

13

14

15

16

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

CYCLOSTREMA.

PLATE II.

Species 8. (Mus. Crosse.)

CYCLOSTREMA SCHRAMMII. *Cyc. testâ subdepressâ; spirâ subcomplanatâ, anfractibus propè suturam excavatis; concentricè obliquè laminis extantibus ornatis, supernè acuminatis.*

SCHRAMMI'S CYCLOSTREMA. Shell subdepressd; spire rather flattened, whorls excavated near the suture; concentrically obliquely ornamented with extant laminæ, acuminated above.

FISCHER. Journ. de Conch., pl. 10, f. 10.

Hab. Guadaloup.

Species 9. (Mus. Brit.)

CYCLOSTREMA MICANS. *Cyc. testâ depressâ, crassâ; spirâ parvâ, depressâ; anfractibus concentricè rugatis, concentricè tricarinatis, carinis noduliferis, mediâ magis prominenti; aperturâ parvâ, rotundâ; margine integro, crasso, crenulato; umbilico parvo.*

THE SHINING CYCLOSTREMA. Shell depressed, thick; spire small, depressed; whorls concentrically three-keeled, keels noduliferous, the middle one more prominent; aperture, small, round; margin entire, thick, crenulated; umbilicus small.

A. ADAMS. Proc. Zool. Soc., 1850.

Cyclostrema pulchella, Dunker.

Cyclostrema modesta, Gould.

Hab. Port Lincoln. Japan.

Species 10. (Mus. Adams.)

CYCLOSTREMA AMMONOCERAS. *Cyc. testâ planorbiculari, anfractibus depressis, costis concentricis crassiùsculis ornatis, inter costas tenuissimè striatis; ultimo anfractu propè suturam et circa umbilicum planato; umbilico mediocri; aperturâ magnâ; labio externo tenui.*

THE AMMONOCERAS CYCLOSTREMA. Shell planorbicular, whorls depressed, ornamented with rather thick concentric ribs, finely striated between the ribs; last whorl flattened near the suture and round the umbilicus; umbilicus middle-sized; aperture large; outer lip thin.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.

Hab. Japan.

Species 11. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA LÆVIS. *Cyc. testâ majusculâ, subdepressâ, lævigatâ, spirâ paulò elevatâ, anfractibus carinatis; ultimo anfractu carinis subdistantibus cincto; umbilico magno, costâ marginato, planulato.*

THE SMOOTH CYCLOSTREMA. Shell rather large, rather depressed, smooth, spire a little elevated, whorls keeled; last whorl encircled with rather distant keels; umbilicus large, bordered with a rib, flat.

KIENER. (Delphinula.) Spec. Gen., p. 12, pl. 4. f. 6.

Delphinula nivea, Reeve.

Cyclostrema diastreta, Gould.

Hab. Port Lincoln, Australia. Japan.

Species 12. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA ANGULATA. *Cyc. testâ majusculâ, depressâ; anfractibus latis; ultimo anfractu magno, medio angulato, suprà angulem spiraliter costellatâ, infrà medium planato, circa umbilicum carinato; umbilico lato, planato; aperturâ magno, margine externo angulato.*

THE ANGULAR CYCLOSTREMA. Shell rather large, depressed; whorls broad; last whorl large, angular in the middle, spirally ribbed above the angle; flattened below the middle, keeled round the umbilicus; umbilicus broad, flattened; aperture large, outer margin angular.

A. ADAMS. Proc. Zool. Soc., 1874.

Hab. Isl. Zeba, Philippines.

Species 13. (Mus. Brit.)

CYCLOSTREMA REEVIANA. *Cyc. testâ majusculâ, concentricè regulariter rugatâ; anfractibus depressis, costis moniliformibus, conspicuis cinctâ; umbilico mediocri, intùs plano; aperturâ subobliquâ.*

REEVE'S CYCLOSTREMA. Shell rather large, concentrically regularly wrinkled; whorls depressed, encircled with beaded conspicuous ribs; umbilicus middle-sized, flat within; aperture rather oblique.

HINDS. (Delphinula.) Voyage of the Sulphur, p. 52, pl. 16, f. 17.

Hab. Straits of Malacca.

Species 14. (Mus. Crosse.)

CYCLOSTREMA BEANI. *Cyc. testâ depressâ, spirâ planorbulâ; ultimo anfractu paulò suprà medium carinato; suprà carinam spiraliter striato; infrà medium planato; circa umbilicum angulato; umbilico intùs plano; aperturâ expansâ; labio externo supernè crenulato, infrà in processum acutè angulatum producto.*

BEAN'S CYCLOSTREMA. Shell depressed, spire planorbular; last whorl keeled a little above the middle; spirally striated above the keel; flattened below; angular round the umbilicus; umbilicus flat within; aperture expanded; outer lip crenulated above, produced into an acutely angular process below.

FISCHER. (Adeorbis.) Journ. de Conch.

Hab. Guadaloupe.

Species 15. (Mus. Brit.)

CYCLOSTREMA TORNATA. *Cyc. testâ depresso-subglobosâ; spirâ subelevatâ, anfractibus lentè crescentibus, rotundis, spiraliter sex-costatis; aperturâ subrotundâ; umbilico parvo.*

THE ENGINE-TURNED CYCLOSTREMA. Shell depressed, subglobose; spire slightly elevated, whorls slowly increasing, round, spirally six-ribbed; aperture rather rounded; umbilicus small.

ARTHUR ADAMS. Sowerby's Thesaurus, Cyclostrema. Species 10, f. 13.

Hab. Japan.

Species 16. (Mus. Brit.)

CYCLOSTREMA CINGULATA. *Cyc. testâ valdè depressâ, carinis acutis propè suturam unâ, infrà medium duabus cinctâ; aperturâ magnâ, triangulatâ; umbilico magno, plano.*

THE ENCIRCLED CYCLOSTREMA. Shell much depressed, encircled with one sharp keel near the suture and two below the middle; aperture large, triangular; umbilicus large, flat.

DUNKER. Mollusca of Japan.

Hab. Japan.

17 a

18 a

18 b

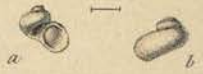
17 b

19 a

19 b

20

21



22

23

Sowerby del et lith

Vincent Brooks Day & Son Imp

CYCLOSTREMA.

PLATE III.

Species 17. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA SPIRULA. *Cyc. testâ planorbulâ, compressâ; spirâ excavatâ; anfractibus rapidè crescentibus, spiraliter striatis, propè suturam declivis, lævibus, ultimo disjuncto; umbilico maximo; aperturâ magnâ, margine externo crenulato.*

THE SPIRULA CYCLOSTREMA. Shell planorbular, compressed; spire excavated; whorls rapidly increasing, spirally striated, sloped and smooth near the suture, last disjoined; umbilicus very large; aperture large, outer margin crenated.

A. ADAMS. Proc. Zool. Soc., 1850, p. 44.

Subgenus *Daronia*, A. Adams.

Serpularia spirula, H. & A. Adams.

Hab. Philippines.

The shell is named from its resemblance to *spirula*, being coiled on a plane and having the last whorls a little apart.

Species 18. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA NIVEA. *Cyc. testâ obliquè semiglobosâ, lævigatâ, supernè convexâ, infrà subplanulatâ, spirâ paulò elevatâ, anfractibus rapidè crescentibus; umbilico maximo; aperturâ magnâ obliquè ovatâ.*

THE SNOWY CYCLOSTREMA. Shell obliquely semiglobose, smooth, convex above, a little flattened below, spire a little raised, whorls rapidly increasing; umbilicus very large; aperture large, obliquely ovate.

CHEMNITZ. (Turbo.) Conch. X., pl. 165, f. 15, 87, 88.

Delphinula nivea, Philippi.

Tubiola nivea, A. Adams.

Hab. Japan.

This is the largest of the three species constituting the subgenus *Tubiola*.

Species 19. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA OBVOLUTA. *Cyc. testâ obliquè ovatâ, supernè depressâ, ad laterâ compressâ; spirâ planatâ, ultimo anfractu supernè infràque angulato, medio planulato; umbilico lato; aperturâ obliquè ovatâ.*

THE WRAPPED UP CYCLOSTREMA. Shell obliquely ovate, depressed above, compressed at the sides; spire flattened, last whorl angular above and below, flattened in the middle; umbilicus wide, aperture obliquely ovate.

A. ADAMS. Ann. and Mag. of Nat. Hist., 1860; Proc. Zool. Soc., 1863.

Hab. Japan.

Species 20. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA CYCLOTINA. *Cyc. testâ planorbulâ, lævigatâ, valdè depressâ; spirâ planâ; ultimo anfractu rapidè crescenti, haud contiguo; umbilico magno, intùs plano; aperturâ magnâ, subrotundâ, suprà infràque obscurè angulatâ.*

THE LITTLE WHEEL CYCLOSTREMA. Shell planorbular, smooth, much depressed; spire flat; last whorl rapidly increasing, not contiguous; umbilicus large, flat within; aperture large, rather rounded, obscurely angular above and below.

A. ADAMS. Sowerby's Thesaurus. Species (*Daronia*) 2, fig. 35, 36.

Hab. Japan.

A second species of *Daronia* having, like Sp. 17, a planorbular coil and slightly disconnected whorls.

June, 1874.

Species 21. (Fig. *a*, *b*, Mus. Brit.)

CYCLOSTREMA CORNUELLA. *Cyc. testâ minutâ, globosâ; spirâ elevatâ; anfractibus paucis, rotundis; ultimo anfractu magno; umbilico lato; aperturâ rotundâ.*

THE LITTLE HORN CYCLOSTREMA. Shell minute, globose; spire raised; whorls few, rounded; last whorl large; umbilicus wide; aperture rounded.

A. ADAMS. (Skenea.) Ann. and Mag. of Nat. Hist., 1860.
Tubiola cornuella, A. Adams, 1863.
Hab. Japan.

Species 22. (Fig. *a*, *b*, Mus. Hanley.)

CYCLOSTREMA DIVISA. *Cyc. testâ turbinatâ, spirâ elevatâ, apice obtuso; anfractibus tribus, rotundis; ultimo anfractu obliquè declivi, a penultimo separato; aperturâ obliquè ovatâ.*

THE DIVIDED CYCLOSTREMA. Shell turbinated, spire elevated, apex obtuse; whorls three, rounded; last whorl obliquely sloped downwards, separated from the penultimate; aperture obliquely ovate.

J. ADAMS. (Turbo.) Forbes and Hanley's British Mollusca.
Helix serpuloides, Montagu.
Hab. British Seas.

Species 23. (Mus. Adams.)

CYCLOSTREMA CRENULIFERA. *Cyc. testâ crassâ, globosâ, latè umbilicatâ, longitudinaliter plicato-rugatâ; suturâ canaliculatâ; anfractibus ad suturam crenulatis; aperturâ subrotundâ; labio externo incrassato, arcuato; umbilico ad marginem crenato.*

THE CRENULATED CYCLOSTREMA. Shell thick, globose, broadly umbilicated, longitudinally wrinkled in plaits; suture canaliculated; whorls crenulated at the suture; aperture rather rounded; outer lip thickened, curved; umbilicus crenated at the margin.

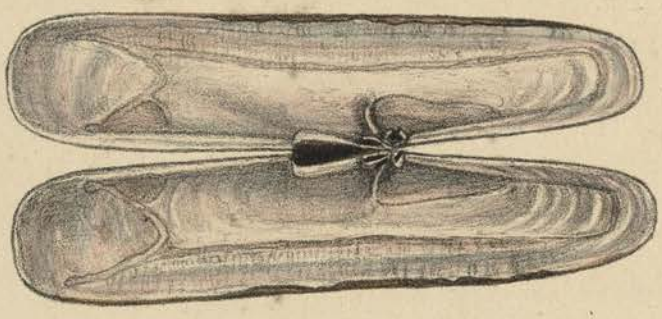
A. ADAMS. Ann. and Mag. of Nat. Hist., 1863.
Isunda crenulifera, A. Adams.
Hab. Japan.

MONOGRAPH

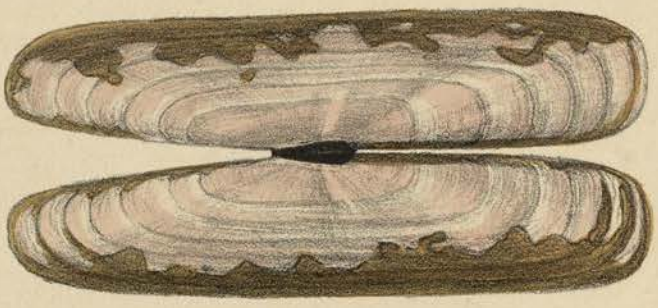
OF THE GENUS

PHARUS.

"Earth with a thousand voices praises God."—*Coleridge.*



1a



1b

Sowerby del et lith.

Vincent Brooke Day & Son Imp.

PHARUS.

PLATE I.

Genus PHARUS, *Leach.*

Testa compressa, subæquilateralis, epidermide tenui induta; internè subtùs umbones costâ validâ perpendiculari munita; cardo dentibus in valvâ dextrâ tribus; in valvâ sinistrâ uno centrali, uno bifido laterali armatus. Impressio muscularis antica elongata, horizontalis. Impressio pallii sinuata.

Shell compressed, subequilateral, with a thin epidermis; internally under the umbones provided with a strong perpendicular rib; hinge armed with three teeth in the right valve, and a bifid lateral one and a central one in the left. Anterior muscular impression elongated, horizontal. Impression of the mantle sinuated.

Syn. Solecurtoides, *Desmoulins.*
Pallia, *D'Orbigny.*
Ceratisolen, *Forbes.*

The single species that is known of this genus has a rather wide geographical range. Like *Solecurtus* it has a central hinge, but a very compressed, elongated form; and the interior is strengthened by an umbonal rib. The foot of the animal is rather peculiar.

Species 1.

PHARUS LEGUMEN. *Pha. testâ tenui, compressâ, pallidissimè roseo-fulvescenti; latere antico breviùsculo, attenuato; margine dorsali declivi; latere postico oblongo, latè, truncato, obtusè angulato; epidermide tenui, extra marginem testâ extensâ.*

THE BEAN-POD PHARUS. Shell thin, compressed, very pale fulvous-rose; anterior side rather short, attenuated; dorsal margin sloped; posterior side oblong, broad, truncated, obtusely angular; epidermis thin, extended beyond the margin of the shell.

LINNÆUS. Systema Naturæ.

Hab. Mediterranean.—Red Sea.—Senegal.—British Islands.

August, 1874.

MONOGRAPH

OF THE GENUS

MEGASPERA.

"All hymn Thy glory, Lord, aright,
All worship and rejoice."—*Keble.*

1a.

2a.

2b.

1b.

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

MEGASPIRA.

PLATE I.

Genus MEGASPIRA, *Lea.*

Testa terrestris, elongato-cylindracea, multispiralis, spirâ elongatâ, aperturâ parvâ, labio externo tenuiter reflexo, columellâ triplicatâ; labio interno ad anfractum ultimum uniplicato.

Shell terrestrial, elongated, cylindrical, many-whorled spiral, spire elongated, aperture small, outer lip thinly reflected, columella three-plaited; inner lip single-plait on the last whorl.

There are but two species, both Brazilian, of this singularly formed genus of land shells.

Species 1. (Fig. *a*, *b*, Mus. Sowerby.)

MEGASPIRA ELATIOR. *Meg. testâ subcylindricâ, umbilicatâ, ad apicem obtusâ, tùm paulò inflatâ, deindè subcontractâ, paulò suprà medium et infrà lentissimè crescenti, anfractibus viginti-duobus, longitudinaliter interruptim fusco strigatis, tenuiter et crebrè costellatâ, columellâ brevi, ad ultimum anfractum incrassato, triplicato; aperturâ anticè subquadratâ.*

THE HIGHER MEGASPIRA. Shell subcylindrical, umbilicated, obtuse at the apex, then a little inflated, afterwards rather contracted, a little above the middle and below very slowly increasing, whorls twenty-two, longitudinally striped with interrupted brown, finely and closely ribbed, columella short, thickened at the last whorl, three-plaited; aperture anteriorly subquadrate.

SPIX. Shells of Brazil.

Hab. Brazil.

Species 2. (Fig. *a*, *b*, Mus. Sowerby.)

MEGASPIRA ELATA. *Meg. testâ angustâ, cylindricâ, apice obtuso, anfractibus numerosis, lentissimè crescentibus; longitudinaliter tenuissimè striatis; aperturâ subovatâ; columellâ uniplicatâ; ultimo anfractu ad labium internum uniplicato.*

THE ELATED MEGASPIRA. Shell narrow, cylindrical, apex obtuse, whorls numerous, very slowly increasing; longitudinally very finely striated; aperture subovate; columella single-plaited; last whorl with a single plait at the inner lip.

GOULD ——?

Hab. Brazil.

More narrow and cylindrical than *Megaspira elata*, with only one plait on the columella. The whorls are also more finely striated.

August, 1874.

MONOGRAPH

OF THE GENUS

CHILINA.

"Thy pow'r divine, and bounty beyond thought,
Adored and praised in all that Thou hast wrought."—*Cowper.*

1a

2a

2b

3a

4a

4b

3b

5a

5b

1b

Sowerby del et lith.

Vincent Brooks Day & Son, Imp

CHILINA.

PLATE I.

Genus CHILINA, *Gray*.

Testa fluviatilis, tenuis, ovata, ventricosa, epidermide olivaceo induta, plerumque fasciis maculisque picta; apertura oblonga; columella incrassata, plusminusve plicata; labio externo acuto.

Shell fluviatile, thin, ovate, ventricose, covered with an olive epidermis, generally painted with bands and spots; aperture oblong; columella thickened, more or less plicated; outer lip sharp.

Syn. *Dombeya*, Orbigny. *Ida*, Lea. *Potamophila*, Swainson.

Although some species of *Limnæa* approach the *Chilinæ* in form and habit, and are also freshwater molluscs, there is no difficulty in distinguishing shells of the two genera. The shells of the *Chilinæ* are always striped or spotted under the epidermis, and the columella is thickened, more or less plaited. All the species inhabit the warm regions of South America.

Species 1. (Fig. *a*, *b*, Mus. Brit.)

CHILINA FLUVIATILIS. *Chi. testâ parvâ, ovatâ, maculis fluctuosis fasciatim pictâ, intùs rosea; spirâ brevi, conicâ, columellâ anticè rectâ, medio uniplicatâ.*

THE FLUVIATILE CHILINA. Shell small, ovate, painted with fluctuating spots in bands, pink within; spire short, conical, columella straight anteriorly, with one plait in the middle.

GRAY, in Brit. Mus. Sowerby's Conchological Illustrations, fig. 5.

Hab. Chili.

Species 2. (Fig. *a*, *b* (and Pl. III.), fig. *c*., Mus. Brit.)

CHILINA FLUMINEA. *Chi. testâ ovatâ, tenui, parvâ, maculis purpureis, subquadratis in seriebus quatuor distinctis notatâ; spirâ subproductâ, anfractibus parvis, convexiùsculis; columellâ crassâ, planatâ, plicis duabus, unâ ad medium, alterâ suprà medium armatâ.*

THE STREAMLET CHILINA. Shell ovate, thin, small, marked with four rows of purple, rather square distinct spots; spire rather produced, whorls few, rather convex; columella thick, flattened, armed with two plaits, one at the middle and one above.

GRAY. Spicilegia Zoologica, p. 5; Conch. Ill. fig. 7.

Hab. S. America.

Species 3. (Fig. *a*, *b*, Mus. Brit.)

CHILINA MAJOR. *Chi. testâ ovato-ventricosâ, interruptum quadrifasciatâ, intùs fuscâ; spirâ breviùsculâ, anfractibus obtusè angulatis, ultimo maximo, ventricoso; columellâ obliquè biplicatâ.*

THE LARGE CHILINA. Shell oval, ventricose, interruptedly four-banded, brown within; spire rather short, whorls obtusely angular, the last very large, ventricose; columella obliquely two-plaited.

SOWERBY. Malacological Magazine, part 2; Conch. Ill. fig. 7.

Hab. S. America.

This very large species is very characteristic of the genus to which it belongs.

Species 4. (Fig. *a*, *b*, Mus. Brit.)

CHILINA DOMBEYANA. *Chi. testâ oblongâ, ovatâ, intùs fuscâ; strigis flexuosis in seriebus tribus pictâ; spirâ productâ; anfractibus obtusè angulatis; aperturâ oblongâ, labio externo suprà medium sinuatim producto; columellâ crassâ, latâ, medio, plica crassâ munitâ.*

DOMBEY'S CHILINA. Shell oblong, ovate, brown within;

painted with flexuous stripes in three rows; spire produced; whorls obtusely angular; aperture oblong, with the outer lip sinuously produced above the middle; columella thick, broad, strengthened in the middle by a thick plait.

Sowerby. Conchological Illustrations, fig. 11.

Hab. Chili.

Species 5. (Fig. *a*, *b*, Mus. Brit.)

Chilina robustior. *Chi. testâ brevi, crassâ, ventricosâ, pallidè fuscâ, fasciis numerosis angulatim maculatis pictâ, intùs subcœruleâ; spirâ breviùsculâ, subconicâ, anfractibus paucis, obtusissimè angulatis; ultimo subventricoso; aperturâ subovatâ, labio externo intùs incrassato; columellâ crassâ, plicis unâ magnâ, infrà medium, alterâ parvâ, obliquâ, suprà medium munitâ.*

The robust Chilina. Shell short, thick, ventricose, pale brown, painted with numerous angularly-spotted bands, bluish within; spire rather short, rather conical, whorls few, very obtusely angular; last whorl rather ventricose; aperture somewhat ovate, outer lip thickened within; columella thick, strengthened with one large plait below, and another small, oblique above the middle.

Sowerby. Malacological Magazine; Conch. Ill. fig. 1.

Hab. S. America.

6

7a

7b

8a

9a

9b

8b

Sowerby, del et lith

Vincent Brooks Day & Son Imp

CHILINA.

PLATE II.

Species 6. (Fig. *a*, *b*, Mus. Brit.)

CHILINA ACUMINATA. *Chi. testâ ovatâ, utrinquè acuminatâ, tenui, leviter, maculatim fasciatâ, aperturâ spiram longitudine æquante; columellâ obliquè biplicatâ.*

THE ACUMINATED CHILINA. Shell oval, acuminated at each end, thin, slightly banded with spots, aperture equalling spire in length; columella obliquely two-plaited.

SOWERBY.

Hab. Baldivia.

This, like the succeeding species, has a thin columella with two small, oblique folds, but the form is so different that it would be a great anomaly to associate the two shells under one specific name.

(Fig. 6. *c.*) Species 10. Mus. Brit.

CHILINA OVALIS. *Chi. testâ ovatâ, maculato-fasciatâ, intùs subviolaceâ; spirâ acuminatâ; aperturâ subovatâ, columellâ arcuatâ, tenui, obliquè biplicatâ.*

THE OVAL CHILINA. Shell ovate, banded with spots, rather violet within; spire acuminated; aperture rather ovate, columella arched, thin, obliquely biplicate.

SOWERBY. Malacological Magazine, Pl. 2, Conch. Illus. f. 6.

Hab. Peru.

Species 7. (Fig. *a*, *b*, Mus. Brit.)

CHILINA FLUCTUOSA. *Chi. testâ subturbinatâ, subovatâ, tenui, strigis fasciatim undulatis, subdistantibus longitudinalibus ornatâ; anfractibus supernè subgibbosis, columellâ uniplicatâ.*

THE FLUCTUATING CHILINA. Shell rather turbinated, rather ovate, thin, ornamented with rather distant longitudinal stripes undulated in bands; whorls rather gibbous above, columella single-plaited.

GRAY. Spicilegia Zoologica, t. 6, f. 19, Conch. Illus. fig. 2.

Hab. S. America.

The shell figured in the Conchological Illustrations hardly seems to correspond with the shells in the British Museum to which Mr. Gray's name is attached.

Species 8. (Fig. *a*, *b*, Mus. Brit.)

CHILINA AMPULLACEA. *Chi. testâ ventricosissimâ, fasciis maculatis paucis pictâ, intùs fuscâ; aperturâ magnâ, anticè latâ, rotundâ; columellâ indistinctè plicatâ; spirâ brevi, anfractibus supernè subplanulatis.*

THE INFLATED CHILINA. Shell very ventricose, painted with few spotted bands, brown within; aperture large, broad anteriorly, rounded; columella indistinctly plaited; spire short; whorls rather flattened above.

SOWERBY. Malacological Magazine, Pl. 2, Conch. Illus. fig. 3.

Hab. S. America.

Much more inflated than *Chilina Major*.

Species 9. (Fig. *a*, *b*, Mus. Brit.)

CHILINA GIBBOSA. *Chi. testâ brevi, subovatâ, solidâ, spiraliter strigatâ, immaculatâ; aperturâ ovatâ, magnâ, albâ; columellâ rectâ, elongatâ, crassâ, medio uniplicatâ, plicâ crassâ, obliquâ; spirâ brevissimâ; anfractibus supernè planulatis.*

THE GIBBOUS CHILINA. Shell short, rather oval, solid, spirally striped, not spotted; aperture ovate, large, white; columella straight, elongated, thick, single-plaited in the middle, plait thick, oblique; spire very short; whorls flattened above.

SOWERBY. Malacological Magazine, Pl. 2, Conch. Illus. fig. 4.

Hab. S. America.

2c

10

11

12a

13

14

12b

15

16

17

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CHILINA.

PLATE III.

(Fig. 2 *c*, Mus. Brit.)

CHILINA FLUMINEA, var., see Plate I.

Species 11. (Mus. Brit.)

CHILINA PUELCHA. *Chi. testâ ovatâ, maculis quadratis in fasciis quatuor dispositis ornatâ, intùs albâ, maculis purpureis quadratis pictâ; spirâ brevi, anfractibus obtusè angulatis; columellâ tenui, infrà plicâ tenui, obliquâ, suprà plicâ majori munitâ.*

THE "PUELCHA" CHILINA. Shell ovate, ornamented with square spots disposed in four rows, white within, painted with purple spots; spire short, whorls obtusely angular; columella thin, strengthened with a thin oblique rib below, and a larger one above.

ORBIGNY. MS. Sowerby, Conch. Illustr. fig. 13.

Hab. Boldivia.

Species 12. (Mus. Brit.)

CHILINA PATAGONICA. *Chi. testâ oblongâ, maculato-fasciatâ; spirâ brevi, anfractibus supernè obtusè angulatis, ultimo magno, lateribus rectiùsculis; aperturâ ovatâ, intùs purpureo seriatim maculato; columellâ crassâ, plicâ crassâ in medio munitâ.*

THE PATAGONIAN CHILINA. Shell oblong, spot-banded; spire short, whorls obtusely angular above, the last large, with rather straight sides; aperture ovate, with rows of purple spots inside; columella thick, strengthened with a thick plait in the middle.

SOWERBY.

Hab. Patagonia.

There is a cylindrical, straight-sided appearance about this shell that seems to distinguish it.

Species 13. (Fig. *a*, *b*, Mus. Brit.)

CHILINA TEHUELCHA. *Chi. testâ solidâ, ovato-subcylindraceâ, tenuiter fasciatim strigatâ; spirâ brevi, conicâ, anfractibus supernè angulatis, subplanulatis, ultimo subrecto, aperturâ magnâ, columellâ latâ, crassâ, irregulariter et obscurè biplicatâ.*

THE "TEHUELCA" CHILINA. Shell solid, ovate-subcylindrical, thinly striped in bands; spire short, conical, whorls angular above, rather flattened, aperture large, columella broad, thick, irregularly and obscurely biplicate.

ORBIGNY. MS. Sowerby, Conch. Illustr. fig. 9.

Hab. S. America.

A rather solid species, with very stout columella.

Species 14. (Mus. Brit.)

CHILINA ELEGANS. *Chi. testâ tenui, ovatâ, utrinquè acuminatâ, subtùs epidermidem eleganter lineis fasciatim undulatis pictâ; spirâ acuminatâ, productâ; aperturâ ovatâ, anticè subattenuatâ; columellâ medio uniplicatâ.*

THE ELEGANT CHILINA. Shell thin, ovate, acuminated at each end, elegantly painted with lines undulated in bands; spire acuminated, produced; aperture ovate, anteriorly subattenuated; columella with a single plait in the middle.

FAIRFIELD. MS. Brit. Mus.

Hab. Boldivia.

Species 15. (Mus. —— ? copied.)

CHILINA TENUIS. *Chi. testâ tenui, subovatâ, subturbinatâ, intùs fuscâ, undulatim, pictâ; spirâ conicâ, acu-*

minatâ; columellâ angustâ, rectiùsculâ, obliquè et tenuiter biplicatâ.

The thin Chilina. Shell thin, subovate, rather turbinated, brown within, painted with undulations; spire conical, acuminated; columella narrow, rather straight, obliquely and thinly two-plaited.

Gray. Sowerby, Conch. Illustrations, fig. 12.

Hab. S. America.

The second figure given in the Conchological Illustrations for *Chilina tenuis* is that of a *C. fluctuosa*.

Species 16. (Mus. Brit.)

Chilina fasciata. *Chi. testâ ovatâ, tenui, fasciis interruptis tribus cinctâ; spirâ acuminatâ, anfractibus convexiùsculis, ultimo magno, ovato; columellâ infrà tortuâ medio obliquè biplicatâ.*

The banded Chilina. Shell ovate, thin, encircled with three interrupted bands; spire acuminated, whorls rather convex, the last large, ovate; columella tortuous below, with two oblique folds in the middle.

Gould ——?

Hab. S. America.

The bands of this species are soft and not distinctly interrupted.

Species 17. (Mus. Brit.)

Chilina subcylindrica. *Chi. testâ ovato-subcylindricâ, intùs, fusco-purpurascenti, spirâ productâ, anfractibus supernè angulatis, declivibus, ultimo ad latera rectiùsculo, aperturâ subovatâ, labio externo intùs incrassato; columellâ plicis unâ superiori magnâ, alterâ inferiori parvâ, munitâ.*

The subcylindrical Chilina. Shell ovate, subcylindrical, purplish-brown, spire produced, whorls angular above, sloped, the last rather straight at the sides, aperture subovate, outer lip thickened within; columella strengthened with an upper large plait, and a lower small one.

Sowerby.

Hab. Ancud, Chili.

Species 18. (Mus. Brit.)

Chilina Parchappii. *Chi. testâ oblongo-ovatâ, pallidè corneâ, tenui, strigis parvis undulatis rubris in fascius tribus aut quatuor dispositis ornatâ; spirâ subattenuatâ, anfractibus declivibus, ultimo ovato, supernè subangulato; columellâ supernè uniplicatâ, infrà tortuâ.*

Parchappi's Chilina. Shell oblong-ovate, pale horny, thin, ornamented with small red undulated stripes, disposed in three bands; spire rather attenuated, whorls sloped, the last ovate, rather angular above; columella single-plaited above, tortuous below.

Orbigny. Synopsis. Sowerby's Conchological Illustrations, fig. 8.

Hab. Conception Island.

MONOGRAPH

OF THE GENUS

PHYSA.

"None can express Thy works, but he that knows them."—*George Herbert.*

1

2.a.

2.b.

3

4.a.

4.b.

5

6.a

6.b.

7.

Sowerby del et Lith

Vincent Brooks, Day & Son, Imp

PHYSA.

PLATE I.

Genus PHYSA, *Draparnaud.*

Testa fluviatilis, cornea, tenuis, spiralis, sinistrorsa, plerumque ovato-acuminata; labio externo acuto, simplici; labio interno expanso, cum columellâ continuo; columella tortua, uniplicata. Operculum nullum.

Shell fluviatile, horny, thin, spiral, sinistral, generally ovate acuminated; outer lip sharp, simple; inner lip expanded, continuous with the columella; columella tortuous, single-plaited. Operculum none.

The Physæ, like the other Lymnædæ, are found in ponds, rivers, and fountains. Many of the older species are North American and many of the newer ones are Australian. We have a couple in Great Britain, and there are others in other parts of Europe. South Africa and India abound in species, which on the whole seem to flourish best in warm countries where running streams are to be found.

Species 1. (Mus. Sowerby.)

PHYSA FONTINALIS. *Phy. testâ tenui, nitenti, translucidâ, pallidè fulvâ, ovatâ; spirâ brevi, acuminatâ; aperturâ obliquâ, columellâ albâ, tenui, tortuâ, plicâ subprominenti; labio interno tenuissimo.*

THE FOUNTAIN PHYSA. Shell thin, shining, transparent, pale fulvous, ovate; spire short, acuminated; aperture oblique, columella white, thin, tortuous, with a rather prominent fold; inner lip very thin.

LINNÆUS (Bulla). Systema Naturæ.

Hab. Great Britain; France; Europe generally.

Mostly found in standing pools and small streams near fountains.

Species 2. (Fig. *a*, *b*, Mus. Sowerby.)

PHYSA AFRICANA. *Phy. testâ ovato-tumidâ, solidiusculâ, nitenti, olivaceâ, fasciis paucis fuscis longitudinalibus ornatâ; spirâ brevissimâ, anfractibus supernè gibbosis; columellâ brevi, albâ, crassâ in angulum dentiformem productâ.*

THE AFRICAN PHYSA. Shell tumid-ovate, rather solid, shining, olivaceous, ornamented with a few brown longitudinal bands; spire very short, whorls gibbous above; columella short, white, thick, produced into a tooth-like angle.

KRAUSS. Sudafriken Mollusken.

Physopsis Africana, Adams.

Hab. Cape of Good Hope.

The prominent tooth-like angle of the short columella is so remarkable that it has been supposed by some to justify a generic separation.

Species 3. (Fig. *a*, *b*, Mus. Brit.)

PHYSA ANCILLARIA. *Phy. testâ ovato-oblongâ, pallidè corneâ, hinc-illic fusco fasciatâ, spirâ breviusculâ, anfractibus apicalibus parvis, penultimo magno, ultimo oblongo, propè suturam tumido; aperturâ ovatâ, labio interno valido; columellâ tortuâ, plicâ moderatè conspicuâ.*

THE HANDMAID PHYSA. Shell ovate-oblong, pale horny, here and there banded with brown, spire rather short, apical whorls small, penultimate large, last oblong, tumid near the suture; aperture ovate, inner lip strong; columella fold tortuous, plait moderately conspicuous.

SAY. Haldeman's Archives, Pl. II. f. 1.

Hab. Pennsylvania.

Species 4. (Fig. *a*, *b*, Mus. Sowerby.)

PHYSA INFLATA. *Phy. testâ globosâ, inflatâ, brevi, pallidè fulvâ, rarò fusco fasciatâ, spirâ brevissimâ, anfractu apicali minuto, secundo inflato; ultimo valdè inflato; ultrà axem producto; aperturâ rotundâ, columellâ arcuatâ, plicâ elevatâ.*

THE INFLATED PHYSA. Shell globose, inflated, short, pale fulvous, here and there banded with brown, spire very short, with apical whorl minute, the second inflated, the last much inflated, produced beyond the axis; aperture rounded, columella arched, plait raised.

ADAMS AND ANGAS. Proc. Zool. Soc.

Hab. S. Australia.

Species 5. (Mus. Sowerby.)

PHYSA SUBINFLATA. *Phy. testâ brevi, inflatâ, ovato-acuminatâ, pallidè corneâ; spirâ brevi acuminatâ; anfractibus rapidè crescentibus, ultimo inflato, ovali; aperturâ subpyriformi; margine vix contracto; columellâ obliquâ, plicâ vix conspicuâ.*

THE SUBINFLATED PHYSA. Shell short, inflated, ovately acuminated, pale horn; spire short, acuminated; whorls rapidly increasing, the last inflated, oval; aperture rather pyriform, with margin scarcely contracted, columella oblique, fold scarcely conspicuous.

SOWERBY.

Hab. S. Australia.

Much more ovate and acuminated than either *Physa inflata* or *Ph. Newcombi*, with the latter of which it is associated in the text.

Species 6. (Mus. Brit.)

PHYSA ALICIÆ. *Phy. testâ subovatâ, fumoso-fuscâ, liris spiralibus subdistantibus, paulò elevatis, ciliatis et striis longitudinalibus cancellatâ; spirâ brevi, acuminatâ, ultimo anfractu propè suturam angulato; aperturâ subovatâ, magnâ, plicâ, conspicuâ.*

ALICE'S PHYSA. Shell subovate, smoky-brown, cancellated with rather distant slightly elevated, ciliated ridges and longitudinal striæ; spire short, acuminated, the last whorl angulated near the suture; aperture rather oval, large, plait conspicuous.

REEVE. Proc. Zool. Soc.

Hab. Indi-

Species 7. (Figs. 7 and 7 *b*, *c*, Plate XI. Mus. Sowerby.)

PHYSA HYPNORUM. *Phy. testâ elongatâ, acuminatâ, nitenti, succineâ; spirâ aperturam longitudine æquanti, anfractibus paucis obliquis, attenuatis; aperturâ angustâ, plicâ columellari conspicuâ, tortuâ.*

THE MOSS PHYSA. Shell elongated, acuminated, shining, amber coloured; spire equalling aperture in length, whorls few, oblique, attenuated; aperture narrow, columella plait conspicuous, tortuous.

LINNÆUS (Bulla). Systema Naturæ.

Hab. Great Britain; France; Europe generally; United States (var. 7 *b*).

The specimen figured (7 *b*) from Michigan near the Rapids is much larger than the European examples, but presents all the same characteristics.

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12 a

12 b

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Sowerby del et lith

Vincent Brooks Day & Son Imp

PHYSA.

PLATE II.

Species 8. (Mus. Sowerby.)

PHYSA ACUTA. *Phy. testâ ovatâ, translucidâ, pallidè corneâ, politâ; spirâ acuminatâ; aperturâ semiovatâ, intùs propè marginem paulò incrassatâ; plicâ columellari vix prominenti, rectiùsculâ.*

THE ACUTE PHYSA. Shell ovate, translucid, pale horn, polished; spire acuminated; aperture semiovate, a little thickened within near the margin; columellar fold scarcely prominent, rather straight.

DRAPARNAUD. Mollusca, p. 55, pl. 3, f. 10, 11.

Hab. Sicily.

This species, which resembles *Physa fontinalis* in some respects, differs from it in the production and sharpness of the apex.

Species 9. (Mus. Sowerby.)

PHYSA HILDRETHIANÆ. *Phy. testâ ovato-oblongâ, tenui, semipellucidâ, corneâ, fusco-grisescenti, fasciis pallidè fulvis distantibus ornatâ; aperturâ intùs castaneâ; columellâ subtortuâ, albidâ.*

HILDRETH'S PHYSA. Shell ovate-oblong, thin, semipellucid, horny, greyish brown, ornamented with distant pale fulvous bands; aperture chestnut within; columella rather tortuous, whitish.

LEA. ——?

Hab. Michigan.

Species 10. (Mus. Brit.)

PHYSA NOVÆ HOLLANDIÆ. *Phy. testâ subfusiformi, fumoso-stramineâ; spirâ productâ, acuminatâ; anfractibus rotundis, apicalibus minutis, ultimo anfractu brevi aperturâ ferè albâ, spiram longitudine æquanti; plicâ columellari tortuâ, conspicuâ.*

THE NEW HOLLAND PHYSA. Shell subfusiform, smoky-straw-coloured; spire produced, acuminated; whorls round, apical ones small, last whorl short; aperture nearly white, equalling the spire in length; columellar plait tortuous, conspicuous.

BLAINVILLE. Malacologie, pl. 37, fig. 3.

Hab. New Holland.

Species 11. (Mus. Sowerby.)

PHYSA MAUGERIÆ. *Phy. testâ ovato-subpyramidatâ, politissimâ, fusco-grisescenti, strigis albis longitudinalibus interruptis numerosis notatâ; spirâ brevi; versùs apicem nigricanti; ultimo anfractu magno, subcylindraceo, posticè subattenuato, anticè subtruncato; aperturâ pallidâ, elongatâ, pyriformi, plicâ columellari compressâ, rectiùsculâ, albâ.*

MAUGER'S PHYSA. Shell ovate-subpyramidal, very shining, greyish brown, marked with numerous white longitudinal interrupted stripes; spire short, darkening towards the apex; last whorl large, subcylindrical, posteriorly subattenuated, anteriorly somewhat truncated; aperture pale, elongated, pyriform, columellar fold compressed, rather straight, white.

QUOY. Voy. de l'Astrolabe.

Hab. Jamaica.

Species 12. (Fig. *a*, *b*, Mus. Brit.)

PHYSA PERUVIANA. *Phy. testâ anguste pyramidatâ, politissimâ, plumbeâ vel subaureâ vel stramineâ; spirâ attenuatâ, acuminatâ, anfractibus posticè attenuatis; ultimo anfractu anticè inflato, subtruncato; aperturâ longiùsculâ, anticè latiùsculâ, intùs aureâ vel pallidè roseâ; plicâ columellari tenui, retrorsum obliquatâ.*

THE PERUVIAN PHYSA. Shell narrowly pyramidal, very shining, plum-coloured or rather golden or straw-coloured; spire attenuated, acuminated, whorls posteriorly attenuated; last whorl anteriorly inflated, subtruncated; aperture rather long,

anteriorly rather broad, golden within or pale pink; columellar fold thin, turned obliquely backwards.

GRAY. Spicilegia Zoologica, p. 5, pl. 6, fig. 10.

Hab. Guayaquil, Peru.

More slender and tapering than *Physa Maugeriæ.*

Species 13. (Mus. Brit.)

PHYSA AURANTIA. *Phy. testâ inflatâ, subpyramidatâ, aurantio-fuscâ, politissimâ, filis aureis undulatis posticè magis numerosis strigatâ, fasciâ aureâ spirali propè suturam marginatâ; aperturâ pyriformi, intùs aureo-fuscâ, labio interno expanso.*

THE ORANGE-COLOURED PHYSA. Shell inflated, subpyramidal, orange-brown, very shining, striped with golden, undulated, threads more numerous posteriorly; bordered near the suture with a golden spiral band; aperture pyriform, golden-brown within, inner lip expanded.

——? MS. Mus. Brit.

Hab. Mexico.

Species. 14. (Mus. Brit.)

PHYSA SOLIDA. *Phy. testâ ovatâ, crassiùsculâ, rubro-fuscâ, fasciâ pallidè subaureâ longitudinaliter hinc illic strigatâ; spirâ breviùsculâ, subacuminatâ; aperturâ intùs flavidâ, rubro-fusco propè marginem fasciatâ, plicâ columellari tortuosâ.*

THE SOLID PHYSA. Shell ovate, rather thick, red-brown, longitudinally striped here and there with a pale golden band; spire rather short, subacuminated; aperture yellowish within, banded near the margin with reddish brown, columellar plait tortuous.

PHILIPPI. ——? (Adams, Genera.)

Hab. Tennessee, United States.

A somewhat thick-set species, of dark horn colour with an occasional light band.

Species 15. (Mus. Brit.)

PHYSA VINOSA. *Phy. testâ brevi, inflatâ, subovatâ, rubro-fuscâ; spirâ brevi, conicâ; aperturâ magnâ, intùs castaneâ; plicâ columellari crassiùsculâ, tortuâ.*

THE VINOUS PHYSA. Shell short, inflated, subovate, red brown; spire short, conical; aperture large, chestnut within, columellar fold rather thick, tortuous.

GOULD. Expedition Shells.

Hab. Lake Superior.

Species 16. (Mus. Brit.)

PHYSA INFLUVIATA. *Phy. pyramidatâ, posticè attenuatâ, anticè inflatâ, subtruncatâ, politissimâ, fusco-aurantiâ, versùs apicem vinosâ; spirâ angustâ, elongatâ, acuminatâ; aperturâ latâ; spiram longitudine parvum superanti; ultimo anfractu anticè valdè inflato.*

THE RIVER PHYSA. Shell pyramidal, posteriorly attenuated, anteriorly inflated, subtruncated, much polished, orange-brown, vinous towards the aperture; spire narrow, elongated, acuminated; aperture wide, a little longer than the spire, last whorl much inflated anteriorly.

MORELET. ——?

Hab. Guatemala.

This species belongs to the same group with *Physa Maugeriæ, aurantia, Peruviana,* &c., but is more pyriform than either.

17.a

18.a

18.b

17.b

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PHYSA.

PLATE III.

Species 17. (Fig. *a*, *b*, Mus. Brit.)

PHYSA TABULATA. *Phy. testâ inflatâ, solidâ, brevi, fusco-subviridi; spirâ obtusâ, breviùsculâ, anfractibus subquadratis, propè suturam planulatis; anfractu ultimo magno, rotundatim angulo; aperturâ latâ, intùs pallidâ, anticè subacuminatâ, labio interno valido, plicâ columellari crassâ, tortuosâ.*

THE TABULATED PHYSA. Shell inflated, solid, short, greenish brown; spire obtuse, rather short, whorls rather square, flattened near the suture; last whorl large, roundly angular; aperture wide, pale within, slightly acuminated within, inner lip strong, columellar fold thick, tortuous.

GOULD ——?

Hab. New Zealand.

Remarkable for the flatness of the whorls above the angle.

Species 18. (Fig. *a*, *b*, Mus. Brit.)

PHYSA CARINATA. *Phy. testâ subcylindricâ, tenui, pallidè stramineâ, posticè latiùsculâ; spirâ brevissimâ, truncatâ, anfractibus supernè carinatis, supra carinam planulatis; ultimo anfractu anticè subangustato; aperturâ oblongâ, anticè acuminatâ, plicâ columellari tenui, leviter tortuâ.*

THE KEELED PHYSA. Shell subcylindrical, thin, pale straw, posteriorly rather wide; spire very short, truncated, whorls keeled above, flattened above the keel; last whorl anteriorly rather narrow, aperture oblong, anteriorly acuminated, columellar fold slightly tortuous.

H. ADAMS. Proc. Zool. Soc.

Hab. Boyne River.

Not so flat at the top as *Physa Reevii*, Ad. and Ang., having one or more whorls inserted.

Species 19. (Mus. Brit.)

PHYSA INTEGRA. *Phy. subovatâ, angustiùsculâ, politâ, fulvo-corneâ, pellucidâ; spirâ exsertâ, anfractibus convexis, distinctis; ultimo anfractu cylindraceo; aperturâ subelongatâ, intùs propè marginem parvum incrassatâ; plicâ columellari breviùsculâ, tortuâ.*

THE INTEGRAL PHYSA. Shell subovate, rather narrow, polished, fulvous, horn-coloured, pellucid; spire produced, whorls convex, distinct; last whorl cylindrical, aperture rather lengthened, a little thickened within near the margin, columellar fold rather short, tortuous.

HALDEMAN. Monograph.

Hab. Mohawk Bay.

Species 20. (Mus. Brit.)

PHYSA TRUNCATA. *Phy. testâ tenui, turbinatâ, subviride fuscâ; spirâ planâ, latâ, truncatâ, anfractibus carinatis; aperturâ angustâ, intùs pallidè purpureo-roseâ, anticè subattenuatâ, plicâ columellari tenui, valdè tortuosâ.*

THE TRUNCATED PHYSA. Shell thin, turbinated, greenish-brown; spire flat, broad, truncated, whorls keeled, aperture narrow, pale purple rose-coloured within, a little attenuated anteriorly, columellar fold thin, very tortuous.

H. ADAMS. Proc. Zool. Soc. (not *Ph. truncata*, Ferr.)

Hab. Birdekin River.

This, like *Physa Reevii*, Ad. and Ang., has the spire quite flat, but the aperture tends to narrow towards the anterior termination.

Species 21. (Mus. Brit.)

PHYSA NEWCOMBI. *Phy. testâ ovato-subglobosâ, aureo-stramineâ; spirâ exsertâ, acuminatâ, anfractibus rotundis, distinctis; ultimo anfractu magno, breviùs-*

culo, rotundato, substriato, post columellam excavato; aperturâ magnâ, latâ, intùs pallidè roseâ; plicâ columellari rectiùsculâ, elongatâ, labio externo obliquè producto.

NEWCOMB'S PHYSA. Shell ovate-subglobose, golden straw-coloured; spire produced, acuminated, whorls rounded, distinct; last whorl large, rather short, rounded, slightly striated, hollow behind the columella; aperture large, broad, pale rose within, columellar fold rather straight, elongated; outer lip obliquely produced.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 416.

Hab. Central Australia.

Species 22. (Mus. Brit.)

PHYSA SALLEANÆ. *Phy. testâ tenui, politâ, corneâ, pallidè purpureâ, spirâ acuminatâ, attenuatâ, ultimo anfractu ovato, angusto; aperturâ anticè latiùsculâ, intùs pallidissimè roseâ; plicâ columellari brevi, crassâ, tortuâ.*

SALLÉ'S PHYSA. Shell thin, polished, horny, pale purple, spire acuminated, attenuated, last whorl ovate, narrow; aperture anteriorly rather broad, very pale pink within; columellar fold short, thick, tortuous.

PFEIFFER. Proc. Zool. Soc. 1853, p. 53.

Hab. St. Domingo.

A smooth shell belonging to the same group as *Physa Peruviana*, with a much more acuminated spire.

Species 23. (Mus. Brit.)

PHYSA ACUMINATA. *Phy. testâ angustâ, cylindricâ, corneâ, semipellucidâ, politâ; spirâ exsertâ, acuminatâ; ultimo anfractu cylindraceo, elongato; aperturâ angustâ, plicâ columellari obliquâ.*

THE ACUMINATED PHYSA. Shell narrow, cylindrical, horny, semipellucid, polished; spire exserted, acuminated; last whorl cylindrical, elongated; aperture narrow, columellar fold oblique.

GRAY? MS. Brit. Mus.

Hab. St. Thomas's Isl. W. Indies.

A little resembling the preceding, but narrower and more cylindrical.

Species 24. (Fig. *a*, *b*, Mus. Brit.)

PHYSA OBESA. *Phy. testâ subviride fuscâ vel ferrugineâ, turbinatâ, posticè truncatâ; spirâ vix exsertâ, anfractibus planulatis, angulatis, ad angulum carinatis; ultimo anfractu posticè lato, anticè subacuminato; aperturâ posticè quadratâ, intùs pallidè roseâ; plicâ columellari tenui, subtortuâ.*

THE FAT PHYSA. Shell greenish brown or ferruginous, turbinated, posteriorly truncated; spire scarcely exserted, whorls flattened, angular, keeled at the angle; last whorl broad posteriorly, subacuminated anteriorly; aperture posteriorly quadrate, pale pink within; columellar plait thin, somewhat tortuous.

H. ADAMS. Proc. Zool. Soc.

Hab. Fitzroy River.

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28 a

29 a

29 b

28 a

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PHYSA.

PLATE IV.

Species 25. (Mus. Sowerby.)

PHYSA FERRUGINEA. *Phy. testâ inflatâ, brevi, lævigatâ, ferrugineâ; spirâ productâ, anfractibus brevibus, rotundatis; ultimo anfractu inflato, brevi, post. columellam subexcavato; aperturâ obliquè declivi, productâ, intùs obscurè purpureâ, anticè subacuminatâ, columellâ tenuiusculâ, rectiùsculâ.*

THE FERRUGINOUS PHYSA. Shell inflated, short, smooth, ferruginous; spire produced, whorls short, rounded; last whorl inflated, short, a little excavated behind the columella; aperture obliquely sloped, produced, dull purple within, anteriorly subacuminated, columella rather thin, rather straight.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 416.

Hab. North Australia.

Species 26. (Mus. Brit.)

PHYSA FRAGILIS. *Phy. testâ tenui, pallidâ, subovatâ; aperturâ magnâ, anticè subacuminatâ; spirâ brevi, anfractibus paucis, parvis; ultimo anfractu lateraliter inflato.*

THE FRAGILE PHYSA. Shell thin, pale, subovate; aperture large, anteriorly subacuminated; spire short, whorls few, small; last whorl laterally inflated.

MIGHÆLS. Haldeman's Monograph, Pl. III. f. 11–13.

Hab. Maine, United States.

Species 27. (Mus. Brit.)

PHYSA GIBBOSA. *Phy. testâ breviter subcylindraceâ, pallidè stramineâ, politâ; spirâ brevi, conicâ, acuminatâ; ultimo anfractu supernè gibboso vel rotundato-angulato; anticè subattenuato; aperturâ elongatâ, labio externo rectiùsculo, plicâ columellari brevi, tortuâ.*

THE GIBBOUS PHYSA. Shell shortly subcylindrical, pale-straw, very smooth; spire short, conical, acuminated; last whorl gibbous or roundly angular above; anteriorly somewhat attenuated; aperture elongated, outer lip rather straight, columellar plait short, tortuous.

GOULD. Expedition.

Hab. New Zealand.

Species 28. (Fig. *a*, *b*, Mus. Brit.)

PHYSA LORDI. *Phy. testâ inflatâ, subtrigonâ, solidiùsculâ, supernè angulatâ; spirâ conicâ, anfractibus angulatis, suprà angulum subplanulatis; anfractu ultimo inflato, angulato, brevi; aperturâ supernè angulatâ; intùs propè marginem castaneo fasciatâ, anticè acuminatâ, productâ; plicâ columellari tenui, prominenti, tortuâ.*

LORD'S PHYSA. Shell inflated, subtrigonal, rather solid, angular above; spire conical, whorls angular, a little flattened above the angle; last whorl inflated, angular, short; aperture angular above, banded with chestnut within near the margin, anteriorly acuminated, produced; columellar fold thin, prominent, tortuous.

BAIRD. Proc. Zool. Soc.

Hab. Lake Oregon, British Columbia. Collected by J. K. Lord, Esq.

Species 29. (Fig. *a*, *b*, Mus. Brit.)

PHYSA NOVÆ ZELANDIÆ. *Phy. testâ turbinatâ, solidâ, castaneâ, lævigatâ; spirâ conicâ, anfractibus rotundatim angulatis; ultimo anfractu inversè conico, anticè subacuminato; aperturâ subaureâ; labio interno valido, plicâ columellari supernè subgibboso.*

THE NEW ZEALAND PHYSA. Shell turbinated, solid, chestnut, smooth; spire conical, whorls roundly angular; last whorl inversely conical, anteriorly somewhat acuminated; aperture rather golden; inner lip strong; columellar fold a little gibbous at the top.

GRAY. MS. Brit. Mus.

Hab. New Zealand.

Species 30. (Mus. Brit.)

PHYSA ELONGATA. *Phy. testâ angustâ, elongatâ, pyramidatâ, nitenti, stramineâ vel subaureâ, leviter strigatâ; spirâ aperturam longitudine paulò superanti, ultimo anfractu subovato; aperturâ breviùsculâ, intùs pallidâ, labio interno expanso, plicâ columellari breviusculâ, tenui, tortuâ.*

THE ELONGATED PHYSA. Shell angular, elongated, pyramidal, shining, straw-coloured or slightly golden, slightly streaked; spire a little exceeding aperture in length; last whorl somewhat oval; aperture rather short, pale inside, inner lip expanded, columellar fold rather short, thin, tortuous.

SAY. New York Acad. Nat. Sci., vol. ii. p. 171.

Hab. North America?

Species 31. (Mus. Brit.)

PHYSA RIVALIS. *Phy. testâ pallidè corneâ, semipellucidâ, lævigatâ, angustâ, ovato-oblongâ; spirâ breviùsculâ, anfractibus convexis; ultimo anfractu elongato; aperturâ elongatâ, intùs propè marginem castaneo palliidè fasciatâ.*

THE RIVER PHYSA. Shell pale horn, semi-pellucid, smooth, narrow, ovate-oblong; spire rather short, whorls convex; last whorl elongated; aperture elongated, with a pale chestnut band near the margin.

SOWERBY. Genera of Shells, Limnæa, fig. 9.

Hab. Columbia River.

Species 32. (Mus. Brit.)

PHYSA MÆSTA. *Phy. testâ inflatâ, brevi, obscurè fusco-subviridi; spirâ exsertâ, acuminatâ, anfractibus supernè planulatis, angulatis, ad angulum plus-minusve subcarinatis; aperturâ latâ, intùs castaneâ; plicâ columellari validâ, elevatâ, crassâ.*

THE SAD PHYSA. Shell inflated, short, dull greenish-brown; spire exserted, acuminated, whorls above flattened, angular, more or less keeled at the angle; aperture broad, chestnut within; columellar fold strong, raised, thick.

H. ADAMS. Proc. Zool. Soc.

Hab. New Zealand.

This species has very close relations with *Physa tabulata* of Gould. The chief difference consists in the *rounded* angles of the whorls in the latter and the distinct square angles in the former. These characters, however, are somewhat varied, and some specimens in each approach very nearly to each other.

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33a

33b

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38a

38b

a

b

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PHYSA.

PLATE V.

Species 32*. (Mus.——? Copied.)

PHYSA TROPICA. *Phy. testâ subglobosâ, albidâ, epidermide obscurè subviridi indutâ; spirâ breviùsculâ, anfractibus rotundis, distinctis; ultimo anfractu valdè inflato, rotundo, post columellam excavato; aperturâ rotundâ, spiram longitudine superanti, obliquè productâ, columellâ leviter arcuatâ.*

THE TROPICAL PHYSA. Shell subglobose, whitish, clothed with a dull greenish epidermis; spire rather short, whorls rounded, distinct; last whorl much inflated, rounded, excavated behind the columella; aperture rounded, longer than the spire, obliquely produced, columella slightly curved.

KRAUSS. Sudafrikanischen Mollusken, tab. 5, fig. 12.

Hab. South Africa.

Species 33. (Fig. *a*, *b*, Mus. Brit.)

PHYSA LATILABIATA. *Phy. testâ fulvâ, brevi, lævi, subpyramidatâ; spirâ aperturam ferè longitudine æquanti; anfractibus rotundissimis, brevibus; ultimo anfractu brevi, rotundo, post columellam umbilicato; aperturâ subovatâ, labio externo arcuato, labio interno crasso, latè reflexo; columellâ latissimâ, elevatâ, crassâ, ferè rectâ, plicâ indistinctâ.*

THE WIDE-LIPPED PHYSA. Shell fulvous, short, smooth, rather pyramidal; spire nearly equal in length to the mouth; whorls rounded, short; last whorl short, round, umbilicated behind the columella; aperture subovate, outer lip arched, inner lip thick, widely reflected; columella very wide, elevated, thick, nearly straight, plait indistinct.

SOWERBY.

Hab. Victoria River.

This species has two remarkable characters, namely, the umbilicus in the body whorl, and the very broad columella.

Species 34. (Mus. Brit.)

PHYSA OLIVACEA. *Phy. testâ angustâ, subfusiformi, obscurè olivaceâ, solidiùsculâ; spirâ elevatâ, aperturam longitudine æquanti, anfractibus subangulatis, uno apicali mammillato; anfractu ultimo posticè angulato, aperturâ intùs castaneâ; plicâ columellari breviùsculâ.*

THE OLIVACEOUS PHYSA. Shell narrow, subfusiform, dull olive, rather solid; spire elevated, equalling the aperture in length, whorls rather angular, the apical one mammillated; last whorl posteriorly angular; aperture chestnut within; columellar fold rather short.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 416.

Hab. Arnheim's Land. Australia.

Species 35. (Mus. Brit.)

PHYSA CONCINNA. *Phy. subovatâ, corneâ, pellucidâ; spirâ breviùsculâ, anfractibus paucis, convexis; ultimo anfractu subcylindrico; aperturâ subovatâ, intùs propè marginem fulvo fasciatâ, plicâ columellari subspiraliter tortuâ.*

THE NEAT PHYSA. Shell subovate, horny, pellucid; spire rather short, whorls few, convex; last whorl rather cylindrical; aperture subovate, with a fulvous band inside near the margin, columellar fold rather spirally tortuous.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 417.

Hab. Arnheim's Land.

Species 36. (Mus. Brit.)

PHYSA GYRINA. *Phy. testâ ovato-subcylindricâ, politâ, pallidè succineâ, semipellucidâ; spirâ conicâ, anfractibus convexiùsculis; ultimo anfractu subcylindrico; aperturâ elongatâ, spiram longitudine multo superanti, intùs propè marginem castaneo*

fasciatâ; plicâ columellari rectiùsculâ, haud prominenti.

THE RINGLET PHYSA. Shell ovate, subcylindrical, polished, pale amber, semipellucid, spire conical, whorls rather convex; last whorl rather cylindrical, aperture elongated, much longer than the spire, banded with chestnut within near the margin; columellar fold rather straight, not conspicuous.

SAY. Journ. A. N. S. Phil. vol. ii. p. 171.

Hab. Near Grand Rapids, Michigan.

Species 37. (Mus. Brit.)

PHYSA ANTIPODEA. *Phy. testâ fusiformi, inflatâ, fulvo-ferrugineâ, opacâ, substriatâ; spirâ elevatâ, anfractibus convexis; ultimo anfractu ovato, in medio inflato; aperturâ ovatâ, plicâ columellari elevatâ, tenui, obliquè subtortuâ.*

THE ANTIPODEAN PHYSA. Shell fusiform, inflated, ferruginous brown, opake, slightly striated; spire elevated, whorls convex; last whorl ovate, swelled in the middle; aperture ovate, columellar fold elevated, a little obliquely twisted.

SOWERBY.

Hab. New Zealand.

Species 38. (Fig. *a*, *b*, Mus. Brit.)

PHYSA BONUS-HENRICUS. *Phy. testâ parvâ, subovatâ, solidiùsculâ, fuscâ; spirâ brevi, obtusâ, anfractibus parvis, rotundatim angulatis; ultimo anfractu perobliquo, propè suturam gibboso, ad latera compresso, rectiùsculo; aperturâ obliquè productâ, declivi, intùs pallidâ, labio externo rectiùsculo, plicâ columellari leviter tortuosâ.*

THE GOOD-HENRY PHYSA. Shell small, subovate, rather solid, brown; spire short, obtuse, whorls small, roundly angular, last whorl very oblique, gibbous near the suture, compressed at the sides, rather straight; aperture obliquely produced, sloped downwards, outer lip rather straight, columellar fold slightly twisted.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 417.

Hab. North Australia.

Species 39. (Fig. *a*, *b*, Mus. Brit.)

PHYSA GRANULATA. *Phy. testâ parvâ, ovato-subfusiformi, pallidè fulvâ, minutissimè granulatâ; spirâ elevatâ, brevi, obtusâ, anfractibus duobus, prominentibus; ultimo anfractu supra aperturâ elevato, obliquè declivi, breviùsculo; aperturâ semiovatâ, plicâ columellari rectâ.*

THE GRANULATED PHYSA. Shell small, ovate-subfusiform, pale fulvous, very minutely granulated; spire elevated, short, obtuse, whorls two, prominent; last whorl elevated above the aperture, obliquely sloped, rather short; aperture semiovate, columellar fold straight.

SHUTTLEWORTH. MS.

Hab. Barbadoes.

A characteristic little species, in which the granulations are scarcely perceptible.

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Sowerby, del et lith.

Vincent Brooks Day & Son Imp.

PHYSA.

PLATE VI.

Species 40. (Mus. Brit.)

PHYSA REEVII. *Phy. testâ turbinatâ, tenuiùsculâ, obscurè fusco-subviridi; spirâ truncatâ, planulatâ, anfractibus carinatis; ultimo anfractu inversè conico, anticè subacuminato; aperturâ posticè angulatâ, anticè retrorsim subarcuatâ; plicâ columellari retrorsim tortuosâ.*

REEVE'S PHYSA. Shell turbinated, rather thin, dull greenish-brown; spire truncated, flattened, whorls carinated; last whorl inversely conical, anteriorly a little acuminated; aperture posteriorly angular, anteriorly a little arched, columellar fold twisted a little backwards.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 417.

Hab. North Australia.

Species 41. (Mus. Brit.)

PHYSA HUMEROSA. *Phy. testâ breviter subcylindricâ, pallidâ, crassâ; spirâ breviusculâ, acuminatâ; anfractu ultimo supernè propè suturam gibboso, subangulato, lateribus rectiùsculis; aperturâ semiovatâ; columellâ crassâ, vix arcuatâ, vix plicatâ.*

THE SHOULDERED PHYSA. Shell shortly subcylindrical, pale, thick; spire rather short, acuminated; last whorl gibbous and somewhat angular above, near the suture, with straight sides; aperture semi-ovate; columella thick, scarcely arched, scarcely plicated.

GOULD. ——?

Hab. New Mexico.

Species 42. (Mus. Brit.)

PHYSA SEMIGLOBOSA. *Phy. testâ globoso-subovatâ, corneo-subviridi, nitenti, tenuissimâ, pellucidâ; spirâ brevissimâ, aperturâ magnâ, subovatâ, ultimo anfractu inflato; plicâ columellari tenui, arcuatim tortuosâ.*

THE SEMIGLOBOSE PHYSA. Shell globose, subovate, greenish-horn, shining, very thin, pellucid; spire very short, aperture large, subovate, last whorl inflated; columellar fold thin, twisted archwise.

WESTERLAND. Mollusques terrestres et d'eau douces, p. 20.

Hab. Sweden.

Species 43. (Fig. *a*, *b*, *c*, Mus. Brit.)

PHYSA PROTEUS. *Phy. testâ solidâ, fusiformi, lævigatâ, pallidè fulvâ aut cinereâ, fasciis castaneis vel albido-subaureis longitudinalibus variegatâ; spirâ elongatâ vel breviùsculâ, anfractibus convexis, nonnunquam subangulatis, aperturâ semiovatâ, intùs purpurascenti; plicâ columellari crassâ, tortuâ.*

THE PROTEUS PHYSA. Shell solid, fusiform, smooth, pale-fulvous or cinereous, varied with chestnut or yellowish-white longitudinal bands; spire elongated or rather short, whorls convex, sometimes a little angular; aperture semi-ovate, purplish within; columellar plait thick, tortuous.

SOWERBY.

Hab. West Australia.

There is quite a gradation from the elegantly fusiform to the stunted angular character.

Species 44. (Mus. Brit.)

PHYSA CUMINGII. *Phy. testâ subinflatâ, inversè conicâ, fusco-ferrugineâ; spirâ brevissimâ, planulatâ, anfractu ultimo maximo, posticè obtusè subangulato, tumido, anticè paulò attenuato; aperturâ elongatâ, labio externo sinuato, labio interno crasso, lato, plicâ columellari tortuâ, validâ.*

CUMING'S PHYSA. Shell a little inflated, inversely conical, ferruginous brown; spire very short,

flattened, last whorl very large, posteriorly obtusely subangular, tumid, a little attenuated in front; aperture elongated, outer lip sinuated, inner lip thick, broad; columellar fold tortuous, strong.

H. ADAMS. Proc. Zool. Soc.

Hab. Port Essington.

Species 45. (Mus. Brit.)

PHYSA HETEROSTROPHA. *Phy. testâ ovato-subfusiformi, fulvâ, opacâ, spirâ breviùsculâ, acuminatâ, anfractibus paucis, parvis, rotundis; ultimo anfractu inflato, brevi, post columellam subexcavato; aperturâ magnâ, semiovatâ, intùs aureâ, propè marginem castaneo fasciatâ; columellâ elongatâ, ferè rectâ.*

THE HETEROSTROPHE PHYSA. Shell ovate-subfusiform, fulvous, opaque, spire rather short, acuminated, whorls few, small, rounded; last whorl inflated, short, a little hollow behind the columella; aperture large, semi-ovate, inside aureous, banded with chestnut near the margin, columella elongated, nearly straight.

SAY. Haldeman's Monograph.

Hab. Pittsburgh, Pennsylvania.

Species 46. (Mus. Brit.)

PHYSA SPICULATA. *Phy. testâ elongatâ, angustâ, fusco-cinerascenti, roseo-fulvo nebulatâ, nitenti; spirâ productâ, attenuatâ, acuminatâ; aperturâ angustâ, semiovatâ, plicâ columellari tenui.*

THE SPIKED PHYSA. Shell elongated, narrow, ashy-brown, clouded with fulvous pink; shining; spire produced, attenuated, acuminated; aperture narrow, semiovate; columellar fold thin.

MORELET. —— ?

Hab. —— ?

Species 47. (Mus. Brit.)

PHYSA SOWERBYANA. *Phy. testâ oblongo-ovatâ, politâ, obscurè succineâ; spirâ elevatâ, acuminatâ; ultimo anfractu subovato; columellâ tenui, leviter tortuosâ.*

SOWERBY'S PHYSA. Shell oblong-ovate, polished, dull amber, spire elevated, acuminated; last whorl nearly oval; columella thin, slightly tortuous.

D'ORBIGNY.

Hab. Jamaica.

Much more inflated than *Physa spiculata*, but not so much so as others of similar form.

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a b

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51 a

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51 b

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a b

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PHYSA.

PLATE VII.

Species 48. (Mus. Brit.)

PHYSA VIRGATA. *Phy. testâ parvâ, ovatâ, politâ, cinereo-fulvâ, albo strigatâ; spirâ breviùsculâ, obtusâ, anfractibus convexiùsculis; ultimo anfractu ovato; aperturâ semiovatâ, intùs castaneâ, plicâ columellari elevatâ, tenui, obliquâ.*

THE STRIPED PHYSA. Shell small, ovate, polished, greyish-fulvous striped with white; spire rather short, obtuse, whorls rather convex; last whorl ovate; aperture semiovate, chestnut within, columellar fold elevated, thin, oblique.

GOULD. —— ?

Hab. Mexico.

Species 49. (Fig. *a*, *b*, Mus. Brit.)

PHYSA TRITICEA. *Phy. testâ parvâ, fumoso-succineâ, translucidâ, angustâ, tenuissimâ; spirâ brevi; ultimo anfractu subcylindraceo; aperturâ elongatâ, angustâ, plicâ columellari tenui, leviter tortuosâ.*

THE WHEAT PHYSA. Shell small, smoky-amber, translucid, narrow, very thin; spire short; last whorl subcylindrical; aperture elongated, narrow, columellar fold thin, slightly tortuous.

LEA. —— ?

Hab. California.

The smallest of the species? Narrow and very transparent.

Species 50. (Fig. *a*, *b*, Mus. Brit.)

PHYSA CUBENSIS. *Phy. testâ parvâ, solidâ, pallidè fulvâ; spirâ breviùsculâ, acuminatâ, anfractibus brevibus, subangulatis; ultimo anfractu subcylindraceo, medio subconstricto, subrugato; aperturâ oblongâ, margine rectiùsculo, plicâ columellari conspicuâ.*

THE CUBAN PHYSA. Shell small, solid, pale-fulvous, spire rather short, acuminated, whorls short, slightly angular; last whorl subcylindrical, a little constricted in the middle, slightly wrinkled; aperture oblong, margin rather straight, columellar fold conspicuous.

PFEIFFER. —— ?

Hab. Cuba.

Species 51. (Fig. *a*, *b*, Mus. Sowerby.)

PHYSA BADIA. *Phy. ovato-subcylindricâ, fusco-olivaceâ, solidiùsculâ; spirâ elevatâ, longitudine aperturam æquanti, anfractibus latis, gibbosis, medio subcompressis; ultimo anfractu breviter subcylindrico; aperturâ breviùsculâ, intùs fusco-purpurascenti, labio externo posticè sinuatim producto, anticè sinuatim emarginato; columellâ duplicatâ.*

THE BAY PHYSA. Shell ovate-subcylindrical, olive-brown, rather solid; spire elevated, equalling aperture in length; whorls broad, gibbous, compressed in the middle; last whorl shortly cylindrical; aperture rather short, purplish-brown within, outer lip posteriorly sinuously produced, anteriorly sinuously emarginated; columella double-plaited.

ADAMS and ANGAS. Proc. Zool. Soc., 1863, p. 416.

Hab. A tributary to Adelaide river in Arnheim's Land.

Species 52. (Mus. Brit.)

PHYSA SAYI. *Phy. testâ ovatâ, politissimâ, pallidè fulvâ, roseo suffusâ; spirâ breviter conicâ, anfractibus brevibus; ultimo anfractu ovato; aperturâ semiovatâ, oblongâ, anticè angustatâ, columellâ retrorsim tortuosâ.*

SAY'S PHYSA. Shell ovate, much polished, pale fulvous, suffused with pink; spire shortly conical, whorls short; last whorl ovate; aperture semiovate, oblong, anteriorly narrowed; columella twisted backwards.

GRAY. —— ? Mus. Brit.

Hab. Hudson's River, North America.

Probably a comparison has been made between this species and *Physa gyrina* of Say. It is more obese and less acuminated, and tapers slightly towards the anterior termination.

Species 53. (Mus. Brit.)

PHYSA ALGOENSIS. *Phy. testâ ovato-subglobosâ, tenuissimâ, pallidè succineâ, hyalinâ, translucidâ, anticè subattenuatâ; spirâ brevi, anfractibus parvis; ultimo anfractu inflato, brevi, plicâ columellari brevi.*

THE ALGOA PHYSA. Shell ovately-subglobose, very thin, pale amber, hyaline, translucid, anteriorly slightly attenuated; spire short, whorls small; last whorl inflated, short, columellar fold short.

MORELET. —— ?

Hab. Damara Land, Algoa.

Species 54. (Mus. Sowerby.)

PHYSA TONGANA. *Phy. testâ fusco-olivaceâ, lævigatâ, fusiformi; spirâ productâ, eleganter acuminatâ; anfractibus obliquè declivibus, subangulatis; ultimo anfractu inflato, supernè subangulato, infrà subattenuato; aperturâ spiram longitudine superanti, posticè subangulato, anticè acuminato, columellâ ferè biplicatâ.*

THE TONGA PHYSA. Shell olive-brown, smooth, fusiform; spire produced, elegantly acuminated; whorls obliquely sloped, somewhat angular; last whorl inflated, slightly angular above, a little attenuated below; aperture longer than the spire, posteriorly slightly angular, anteriorly acuminated, columella nearly double-plaited.

QUOY. Voyage de l'Astrolabe, Pl. LVIII., fig. 19, 20.

Hab. Australia.

Species 55. (Fig. *a*, *b*, Mus. Sowerby.)

PHYSA SINUATA. *Phy. testâ parvâ, subfusiformi, fusco-ferrugineâ; spirâ productâ, acuminatâ, anfractibus parvis, gibbosis; ultimo anfractu subovato; aperturâ intùs pallidè purpureâ, labio externo sinuato; plicâ columellari parvâ, altâ.*

THE SINUATED PHYSA. Shell small, subfusiform, ferruginous-brown; spire produced, acuminated; whorls small, gibbous; last whorl rather ovate; aperture pale purple within, outer lip sinuous; columellar fold small, raised.

GOULD. Expedition shells.

Hab. New South Wales.

Species 56. (Mus. Brit.)

PHYSA RETICULATA. *Phy. testâ subpyramidatâ, gracili, fumoso-corneâ, concentricè et spiraliter striatâ; spirâ elevatâ, acuminatâ, anfractibus obliquè declivibus, prominentibus; ultimo anfractu obliquo, anticè subinflato, posticè subattenuato; aperturâ subpyramidatâ, intùs pallidè aureo.*

THE RETICULATED PHYSA. Shell rather pyramidal, smooth, smoky-horn-coloured, concentrically and spirally striated; spire elevated, acuminated, whorls obliquely sloped; prominent; last whorl oblique, anteriorly slightly inflated, posteriorly subattenuated; aperture subpyramidal, pale golden within.

GOULD. —— ?

Hab. Sandwich Islands.

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Sowerby del. et lith.

Vincent Brooks Day & Son. Imp.

PHYSA.

PLATE VIII.

Species 57. (Mus. Brit.)

PHYSA VANDIEMENENSIS. *Phy. testâ solidâ, subquadratâ, fumoso-corneâ; spirâ brevi, anfractibus paucis, subangulatis; ultimo anfractu oblongo, prope suturam angulato; aperturâ subquadratâ, intùs obscurè purpurascenti, labio externo anticè expanso, columellâ tortuâ, retrorsâ.*

VAN DIEMEN'S PHYSA. Shell solid, rather square, smoky horn; spire short, whorls few, subangular; last whorl oblong, angular near the suture; aperture squarish, dull purplish within, outer lip anteriorly expanded, columella tortuous, turned backwards.

SOWERBY.

Hab. Van Diemen's Land.

Of a rather square oblong form, this species presents an angular appearance somewhat unusual in the genus. It is, however, only in quite mature specimens that the angularity appears strongly.

Species 58. (Mus. Brit.)

PHYSA WALBERGII. *Phy. testâ elongatâ, turritâ, pallidâ; spirâ elevatâ, anfractibus quinque convexiùsculis, anfractu ultimo subovato, lateribus rectiùsculis; aperturâ parvâ, oblongâ; plicâ columellari prominenti, tortuâ.*

WALBERG'S PHYSA. Shell elongated, turreted, pale; spire elevated, whorls five rather convex, last whorl a little oval, sides a little straight; aperture small, oblong; columellar plait prominent, tortuous.

SOWERBY.

Hab. River Nile, Egypt.

Species 59. (Mus. Taylor.)

PHYSA ACICULATA. *Phy. testâ elongatâ, pyramidatâ, attenuatâ, fumoso-corneâ, semipellucidâ; spirâ elevatâ, acuminatâ, anfractibus sex, obliquis; ultimo anfractu subfusiformi; aperturâ breviùsculâ, columellâ tortuâ, albidâ, retrorsâ.*

THE NEEDLE-SHAPED PHYSA. Shell elongated, pyramidal, attenuated, smoky-horn, semipellucid; spire elevated, acuminated, whorls six, oblique; last whorl rather fusiform; aperture rather short, columella tortuous, whitish, turned backwards.

SOWERBY.

Hab. New South Wales.

Species 60. (Fig. *a*, *b*, Mus. Sowerby.)

PHYSA TETRICA. *Phy. testâ ovatâ, solidâ, lævigatâ, pallidè fulvâ, fasciis longitudinalibus raris castaneis notatâ; spirâ breviùsculâ, obtusâ, anfractu penultimo tumido; ultimo anfractu oblongo; aperturâ intùs castaneo marginatâ.*

THE RUDE PHYSA. Shell ovate, solid, smooth, pale fulvous, marked with rare longitudinal chestnut bands; spire rather short, obtuse, penultimate whorl tumid; last whorl oblong; aperture chestnut, bordered within.

MORELET. Journal de Conchyliologie, vol. xvi. f. 325.

Hab. Angola and Benguela.

Species 61. (Mus. Taylor.)

PHYSA SUBUNDATA. *Phy. testâ fusco-olivaceâ, ventricosâ, concentricè leviter undulatâ; spirâ breviùsculâ, apice acuminato, anfractu penultimo lato, subangulato; ultimo anfractu magno, prope suturam tumido, rotundatim angulato; aperturâ magnâ, intùs prope marginem castaneo strigatâ; plicâ columellari crassiùsculâ, tortuâ.*

THE SLIGHTLY-WAVED PHYSA. Shell olive-brown, ventricose, concentrically slightly undulated; spire rather short, apex acuminated, penultimate whorl broad, rather angular, last whorl large, swelled

near the suture, roundly angular; aperture large, striped with chestnut within near the border; columellar fold rather thick, tortuous.

SOWERBY.

Hab. St. Margaret's, South Australia.

Species 62. (Mus. Brit.)

PHYSA PYRAMIDATA. *Phy. testâ solidâ, subaureo-fuscâ, pyramidatâ, spirâ productâ, anfractibus sex, obliquis, suprà attenuatis, infrà inflatis; ultimo anfractu ventricoso, subfusiformi; aperturâ auriformi, labio interno crassiùsculo, plicâ columellari elevatâ.*

THE PYRAMIDAL PHYSA. Shell solid, rather golden-brown, pyramidal, spire produced, whorls six, oblique, attenuated above, inflated beneath; last whorl ventricose, rather fusiform; aperture auriform, inner lip rather thick, columellar fold elevated.

SOWERBY.

Hab. Australia.

A shell of graceful form resembling in the slope of the whorls *Limnæa stagnalis*, which are too oblique and attenuated for the most aberrant form of *Physa longana*.

Species 63. (Mus. Brit.)

PHYSA AMYGDALUS. *Phy. testâ magnâ, oblongâ, ovatâ, solidâ, lævigatâ corneo-fuscâ; spirâ breviùsculâ, anfractibus paucis, inflatis; ultimo anfractu ovato, postivè subattenuato, anticè magis inflato; aperturâ magnâ, intùs subaureâ, semipellucidâ, castaneo fasciatâ; labio externo flexuoso; labio interno pallido, latè reflexo, plicâ columellari crasso, rectiùsculo.*

THE ALMOND PHYSA. Shell large, oblong, ovate, solid, smooth horny-brown; spire rather short, whorls few, inflated; last whorl ovate, posteriorly slightly attenuated, anteriorly more inflated; aperture large, rather golden within, semipellucid, banded with chestnut; outer lip flexuous, inner lip pale, broadly reflected; columellar fold thick, rather straight.

SOWERBY.

Hab. Texas, North America.

One specimen of this fine species is preserved in the British Museum.

Species 64. (Mus. Orbigny in Brit.)

PHYSA STRIATA. *Phy. testâ parvâ, ovatâ, tenui, corneâ, minutissimè concentricè radiatimque striatâ, spirâ brevi, acuminatâ, ultimo anfractu ovato; aperturâ magnâ, plicâ columellari inconspicuâ.*

THE STRIATED PHYSA. Shell small, ovate, thin, horny, very finely concentrically and radiately striated, spire short, acuminated, last whorl ovate; aperture large, columellar fold not conspicuous.

D'ORBIGNY. Mollusca of Cuba, p. 192, Pl. XIII. f. 14-16.

Hab. Cuba.

A lens is required to see the striation in both directions which characterizes this little species.

Species 65. (Mus. Brit.)

PHYSA VITRÆA. *Phy. testâ tenui, albidâ, translucidâ, fusiformi, vitræa; spirâ subelevatâ, obtusâ, anfractibus paucis, inflatis; ultimo anfractu oblongo; aperturâ semiovatâ; plicâ columellari rectiùsculâ.*

THE GLASSY PHYSA. Shell thin, whitish, translucid, fusiform, glassy; spire a little elevated, obtuse, whorls few, inflated; last whorl oblong; aperture semi-ovate; columellar plait rather straight.

PARREYS. ——?

Hab. Lake Mareotis, Egypt.

Species 66. (Mus. Taylor.)

PHYSA DISPAR. *Phy. testâ fusiformi, acuminatâ, tenuiter sinuatim rugatâ, in partibus fusco-rubescenti, in partibus stramineâ; spirâ productâ, attenuatâ, apicè acuminato; anfractibus obliquis, attenuatis; ultimo anfractu oblongo, aperturâ anticè attenuatâ, plicâ columellari haud prominenti, vix arcuatâ.*

THE DISSIMILAR PHYSA. Shell fusiform, acuminated, finely sinuously wrinkled, in parts reddish-brown, in parts straw-coloured; spire produced, attenuated, apex acuminated; whorls oblique, attenuated; last whorl oblong, aperture anteriorly attenuated, columellar fold not prominent, scarcely arched.

SOWERBY.

Hab. Sydney, New South Wales.

This form does not appear to have been hitherto described.

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Sowerby del et lith

Vincent Brooks Day & Son, Imp

PHYSA.

PLATE IX.

Species 67. (Mus. Brit.)

PHYSA AURICULATA. *Phy. testâ brevi, inflatâ, fusco-olivaceâ, lævigatâ, solidâ; spirâ brevi, acuminatâ; ultimo anfractu suprà tumido, vix angulato, anticè subattenuato; aperturâ magno, anticè subattenuato, plicâ columellari albâ, subtortuâ, brevi.*

THE AURICULATED PHYSA. Shell short, inflated, olive-brown, smooth, solid; spire short, acuminated; last whorl tumid above, scarcely angular, anteriorly a little attenuated; aperture large, anteriorly slightly attenuated, columellar fold white, a little tortuous, short.

GASSIES. Journal de Conchyliologie, vol. vi. Pl. IX. f. 5-6.

Hab. Australia.

Species 68. (Mus. ——? copied.)

PHYSA KANAKINA. *Phy. testâ ovatâ, solidâ, olivaceo-fuscâ; spirâ aperturam longitudine fere æquanti; anfractu penultimo inflato; ultimo anfractu ovato; aperturâ auriformi; plicâ columellari brevi, tortuâ.*

THE KANAKINA PHYSA. Shell ovate, solid, olive-brown; spire nearly equalling aperture in length; penultimate whorl inflated; last whorl ovate; aperture auriform; columellar fold short, tortuous.

GASSIES.

Hab. 'Kanakina,' Australia.

Species 69. (Mus. ——? copied.)

PHYSA CALEDONICA. *Phy. testâ parvâ, tenui, lævigâtâ, subovato-fusiformi, corneâ; spirâ quam aperturâ breviori, conicâ, acuminatâ; aperturâ auriformi, plicâ columellari inconspicuâ.*

THE CALEDONIAN PHYSA. Shell small, thin, smooth, subovate-fusiform, horny; spire shorter than aperture, conical, acuminated; aperture auriform, columellar plait inconspicuous.

MORELET. Soc. Hist. Nat. Moselle, 1856-7.

Hab. New Caledonia.

Species 70. (Mus. Brit.)

PHYSA PLICATA. *Phy. testâ inflatâ, patulâ, corneâ; spirâ brevi, acuminatâ, anfractibus brevibus; ultimo anfractu magno, ovato, labio interno valido, albo; plicâ columellari arcuatâ; aperturâ auriformi, labio externo expanso.*

THE PLICATED PHYSA. Shell inflated, patulous, horny; spire short, acuminated, whorls short; last whorl large, ovate, inner lip strong, white; columellar lip arched; aperture auriform, outer lip expanded.

DE KAY. Shells of the United States, p. 78, Pl. V. f. 85.

Hab. North America.

Species 71. (Fig. *a*, *b*, Mus. Brit.)

PHYSA JUKESII. *Phy. testâ parvâ, ovato-rotundâ, lævigatâ, albâ; spirâ brevissimâ, obtusissimâ, anfractibus duobus; ultimo anfractu magno, inflato; labio interno valido, plicâ columellari dentiformi, truncato.*

JUKES'S PHYSA. Shell small, ovate-rounded, smooth, white; spire very short, very obtuse, whorls two; last whorl large, inflated; inner lip strong, columellar fold tooth-shaped, truncated.

A. ADAMS. Proc. Zool. Soc.

Hab. Australia.

This little species is characterized by a small tooth-like projection terminating the columella similar to that in *Physa Africana*.

Species 72. (Fig. *a*, *b*, Mus. ——? Copied.)

PHYSA DISTORTA. *Phy. testâ parvâ, pallidè corneâ, subovatâ, spirâ brevi, anfractibus duobus aut tribus, penultimo inflato, subquadrato; ultimo anfractu subcylindraceo, prope suturam tumido, subangulato; columellâ latâ, leviter arcuatâ.*

THE DISTORTED PHYSA. Shell small, pale horn, subovate, spire short, whorls two or three, the penultimate inflated, subquadrate; last whorl subcylindrical, tumid, subangular near the suture; columella broad, slightly arched.

HALDEMAN. Physadæ, p. 35, Pl. V. f. 1-3.

Hab. North America.

Species 73. (Mus. Brit.)

PHYSA ELLIPTICA. *Phy. testâ elongato-subovatâ, fusco-subolivaceâ; posticè subattenuatâ; spirâ productâ, conicâ; aperturâ intùs aureâ, prope marginem castaneo fasciatâ; labio interno pallidâ, albo marginato, columellâ crassâ, plicâ inconspicuâ.*

THE ELLIPTICAL PHYSA. Shell elongate, subovate, rather olive-brown; posteriorly subattenuated; spire produced, acuminated; aperture golden within, banded with chestnut near the margin; inner lip pale, white-edged, columella thick, plait inconspicuous.

LEA. Ann. Phil. Soc., vol. v. Pl. XIX. f. 83.

Hab. Indiana.

Not sharply mucronate in the spire as is the case with *Physa gyrina* of Say.

Species 74. (Mus. Brit.)

PHYSA VENTRICOSA. *Phy. testâ ovatâ, politâ, ventricosâ, succineâ; spirâ breviùsculâ, acuminatâ; ultimo anfractu ovato; aperturâ magnâ; columellâ rectiùsculâ, plicâ inconspicuâ.*

THE VENTRICOSE PHYSA. Shell ovate, polished, ventricose, amber; spire rather short, acuminated; last whorl ovate; aperture large; columella rather straight, plait inconspicuous.

GUILDIS. Zool. Journ.

Hab. St. Vincent's, West Indies.

Species 75. (Mus. ——? New York.)

PHYSA CYLINDRICA. *Phy. testâ oblongâ, cylindraceâ, solidâ, palidè rubro-fuscâ; spirâ brevi, conicâ; ultimo anfractu oblongo, angusto, rectiùsculo; aperturâ elongatâ, labio externo rectiùsculo, prope marginem castaneo fasciato; labio interno pallidâ, columellâ crassâ, subplanulatâ, rectiùsculâ.*

THE CYLINDRICAL PHYSA. Shell oblong, cylindrical, solid, pale red-brown; spire short, conical; last whorl oblong, narrow, rather straight; aperture elongated, outer lip rather straight, banded with chestnut near the margin; inner lip pale, columella thick, rather flat, rather straight.

DE KAY. Shells of United States.

Hab. Red Creek, Indiana.

Species 76. (Mus. Brit.)

PHYSA FUSCA. *Phy. testâ parvâ, subovatâ, nitenti, fuscatâ, semipellucidâ; spirâ productâ, acuminatâ, anfractibus subrotundis; ultimo anfractu amplo, aperturâ subauriformi; columellâ leviter arcuatâ.*

THE BROWN PHYSA. Shell small, subovate, shining, brown, semipellucid; spire produced, acuminated, whorls rather round; last whorl full, aperture somewhat auriform; columella slightly curved.

ROSMÄSLER ——?

Hab. River Mazarin.

Species 77. (Mus. Brit.)

PHYSA BENGUELENSIS. *Phy. testâ fusiformi, utrinque acuminatâ, pallidâ, leviter rugatâ; spirâ aperturam longitudine superanti, acuminatâ; anfractibus tribus, obliquis, convexis; aperturâ anticè subattenuatâ.*

THE BENGUELA PHYSA. Shell fusiform, acuminated; at both ends pale, lightly wrinkled; spire exceeding aperture in length, acuminated; whorls three, oblique, convex; aperture a little attenuated anteriorly.

SOWERBY.

Hab. Benguela, Egypt.

78

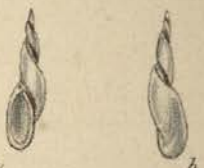
79

80

81

a b

82

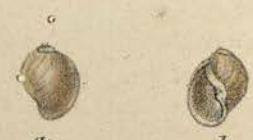


a b

83

84

85



a b

87

86

PHYSA.

PLATE X.

Species 78. (Mus. Brit.)

PHYSA MAREOTICA. *Phy. testâ parvâ, subcylindricâ, lævigatâ, albidâ, semipellucidâ, spirâ scalatâ, anfractibus tribus, subquadratis, ultimo versus suturam tumido, subangulato; aperturâ oblongâ, supernè angulatâ, columellâ rectiùsculâ.*

THE MAREOTIS PHYSA. Shell small, subcylindrical, smooth, whitish, semipellucid, spire in steps, whorls three, rather square, the last tumid, angular near the suture; aperture oblong, angular above, columella rather straight.

SOWERBY.

Hab. River Mareotis, Egypt.

Species 79. (Mus. Brit.)

PHYSA NATALENSIS. *Phy. testâ subglobosâ, pallidè corneâ, lævigatâ, semipellucidâ, spirâ brevissimâ; ultimo anfractu inflato, supernè subangulato, post columellam excavato; aperturâ magnâ, posticè subangulatâ, anticè subacuminatâ.*

THE NATAL PHYSA. Shell subglobose, pale-horn, smooth, semi-pellucid, spire very short; last whorl inflated, slightly angular above, excavated behind the columella; aperture large, posteriorly somewhat angular, anteriorly slightly acuminated.

KRAUSS. Sudafrikanischen Mollusken, p. 84, Tab. V. f. 10.

Hab. Natal, in stagnant pools.

Species 80. (Mus. ——? Copied.)

PHYSA MICROSTOMA. *Phy. testâ parvâ, ovatâ, lævigatâ, albidâ; spirâ aperturam longitudine ferè æquanti; aperturâ angustâ, columellâ crassâ, leviter bidentatâ.*

THE SMALL-MOUTHED PHYSA. Shell small, ovate, smooth, white; spire nearly equalling the aperture in length; aperture narrow, columella thick, slightly bidentate.

HALDEMAN. Monograph, Physadæ, p. 35, Pl. V. f. 10.

Hab. North America.

On the inner edge of the columella in this species are two small tooth-like projections.

Species 81. (Mus. ——? Copied.)

PHYSA DIAPHANA. *Phy. testâ parvâ, vitreâ, subglobosâ; spirâ brevi, anfractibus paucis, distinctis, tumidis; ultimo anfractu inflato; aperturâ semiovatâ; columellâ vix arcuatâ.*

THE DIAPHANOUS PHYSA. Shell small, glassy, subglobose; spire short, whorls few, distinct, tumid; last whorl inflated; aperture semiovate; columella scarcely arched.

KRAUSS. Sudafrikanischen Mollusken, p. 84, Tab. V. f. 11.

Hab. Umgani valley, Natal.

A very small transparent species.

Species 82. (Mus. Brit.)

PHYSA NERITOIDEA. *Phy. testâ parvâ, solidâ, obliquè subglobosâ, succineo-rufescenti, strigis albidis notatâ, spirâ brevi, obtusâ, anfractibus duobus, brevibus, ultimo anfractu inflato, anticè obliquè expanso; aperturâ subpyriformi; labio externo anticè obliquè producto; columellâ latâ, complanatâ, plicâ tortâ, conspicuâ.*

THE NERITA-SHAPED PHYSA. Shell small, solid, obliquely subglobose, reddish amber, marked with white stripes, spire short, obtuse, whorls two, short, last whorl inflated, anteriorly obliquely expanded,

aperture subpyriform; outer lip anteriorly obliquely produced; columella broad, flattened, plait tortuous, conspicuous.

SOWERBY.

Hab. ——?

A little shell of very curious form, with very broad conspicuous plait.

Species 83. (Mus. Brit.)

PHYSA TEREBRA. *Phy. testâ attenuatâ, albâ, vitreâ, lævigatâ; spirâ productâ, acuminatâ, anfractibus laxatis, subdistantibus, subplanulatis, per obliquis, aperturâ oblongâ, angustâ, rectiùsculâ.*

THE TEREBRA PHYSA. Shell attenuated, white, glassy, smooth; spire produced, acuminated, whorls loosened, rather distant, a little flattened, very oblique, aperture oblong, narrow, rather straight.

BENSON. Camptoceras terebra.

Hab. Moradabad, India.

Singularly contrasting in form with the preceding species, *Physa neritoidea*. The whorls are quite separated.

Species 84. (Mus. ——? Copied.)

PHYSA GUILLIANI. *Phy. testâ subovatâ, corneo-cinerascenti, spirâ breviùsculâ; anfractibus subangulatis, prope suturam subcanaliculatis; ultimo anfractu subcylindrico, posticè subattenuato, aperturâ oblongâ; labio externo flexuoso, posticè producto; columellâ tortuâ, plicâ conspicuâ.*

GUILLIAN'S PHYSA. Shell subovate, cinereous-horny, spire very short; whorls subangular, slightly canaliculated near the suture; last whorl subcylindrical, posteriorly a little attenuated, aperture oblong; outer lip flexuous, posteriorly produced; columella tortuous, plait conspicuous.

CROSSE ET MARIE. Journal de Conchyliologie, vol. vi.

Hab. Roper's Lake, New Caledonia.

Species 85. (Mus. Taylor.)

PHYSA TENUISTRIATA. *Phy. testâ subcylindricâ, olivaceo-fuscâ, tenuiter spiraliter concentriceque striatâ; spirâ breviùsculâ, anfractibus subangulatis, penultimo perobliquo, apice acuminato; aperturâ intùs castaneâ, anticè subacuminatâ.*

THE FINE-STRIATED PHYSA. Shell subcylindrical, olive-brown, finely spirally and concentrically striated; spire rather short, whorls slightly angular, the penultimate very oblique, apex acuminated; aperture chestnut within, anteriorly a little acuminated.

SOWERBY.

Hab. River Torrens, South Australia.

The decussated texture of this species is peculiar.

Species 86. (Mus. ——? Copied.)

PHYSA CASTANEA. *Phy. testâ brevi, solidâ, inflatâ, castaneâ, lævigatâ, lineis nigricantibus strigatâ; spirâ brevi, anfractibus paucis, brevibus, angulatis; ultimo anfractu magno, subcylindricâ; plicâ columellari prominenti.*

THE CHESTNUT PHYSA. Shell short, solid, inflated, chestnut-coloured, smooth, striped with blackish lines; spire short, whorls few, short, angular; last whorl large, subcylindrical; columellar fold prominent.

SOWERBY. Genera of Shells, Lymnæa, Pl. II.

Hab. Australia.

Species 87. (Mus. Brit.)

PHYSA SUBROTUNDA. *Phy. testâ parvâ, pallidè fulvâ, semiglobosâ; spirâ brevissimâ, anfractu unico rotundo, ultimo anfractu magnâ, inflatâ; aperturâ magnâ; plicâ columellari retrorsâ, tortâ.*

THE ROUNDISH PHYSA. Shell small, pale-fulvous, semiglobose; spire very short, with a single rounded whorl, last whorl large, inflated; aperture large; columella turned back, tortuous.

SOWERBY.

Hab. North America.

The writer could not find any description or figure applicable to this shell.

7b

88a

88b

90

89a

89b

a

b

92

91a

91b

c

7c

Sowerby del. et lith.

Vincent Brooks Day & Son Imp

PHYSA.

PLATE XI.

(Fig. 7, *b*, *c*, Mus. Sowerby.)

PHYSA HYPNORUM. *Linn.* (Plate I.) The larger, fig. *c*, from the Grand Rapids, Michigan, United States; and the smaller (fig. b.), a pretty little chequered shell, from Bombay.

Species 88. (Fig. *a*, *b*, Mus. Legrand.)

PHYSA APERTA. *Phy. testâ parvâ, brevi, ovatâ, inflatâ, epidermide olivaceo-fuscâ indutâ; spirâ brevissimâ, anfractibus duobus; ultimo anfractu inflato, supernè subgibboso; aperturâ magnâ, latâ, intùs subcæruleâ, columellâ tortuâ, plicâ prominulâ.*

THE OPEN PHYSA. Shell small, short, ovate, inflated, covered with an olive-brown epidermis; spire very short, with two whorls; last whorl inflated, rather gibbous above; aperture large, broad, bluish within, columella tortuous, fold rather prominent.

SOWERBY.

Hab. Near Hamilton, Australia.

I am indebted for this interesting little species, and several of the following, to Mr. Legrand, of Hobart Town.

Species 89. (Fig. *a*, *b*, Mus. Legrand.)

PHYSA EBURNEA. *Phy. testâ gracili, obliquâ, subfusiformi, politâ, albâ, fulvescenti, semipellucidâ; spirâ âcuminatâ, quam aperturâ longiori; anfractibus obliquis, declivibus, attenuatis; aperturâ breviùsculâ, subauriformi, intùs fusco-rubescenti; columellâ tortuâ, albâ medio interdum incrassatâ.*

THE IVORY PHYSA. Shell slender, oblique, rather fusiform, polished, white fawn, semipellucid; spire acuminated, longer than the aperture; whorls oblique, sloped, attenuated; aperture rather short, subauriform, reddish-brown within; columella tortuous, white, sometimes thickened in the middle.

SOWERBY.

Hab. Near Launceston, Tasmania.

Species 90. (Mus. Legrand.)

PHYSA MAMILLATA. *Phy. testâ elongatâ, fuscâ, anticè subexpansâ; spirâ quam aperturâ breviùsculâ; anfractibus apicalibus minutis, acuminatis, antepenultimo inflato, gibboso, penultimo inflato, gibboso, elongato; ultimo anfractu attenuato, subcylindrico, anticè obliquè subexpanso; aperturâ oblongâ, intùs subviolaceâ, columellâ tenui, tortuâ, plicâ elevatâ.*

THE MAMMILLATED PHYSA. Shell elongated, brown, anteriorly somewhat expanded; spire a little shorter than aperture; apical whorls minute, acuminated, antepenultimate inflated, gibbous, penultimate inflated; last whorl attenuated, subcylindrical, anteriorly obliquely rather expanded; aperture oblong, rather violet within; columella thin, tortuous, plait elevated.

SOWERBY.

Hab. Brunni Island.

The peculiarity of this species is the manner in which the antepenultimate whorl suddenly expands after the contracted apex; and the penultimate drawn out to a great length.

Species 91. (Fig. *a*, *b*.)

PHYSA PUNCTURATA. *Phy. testâ tenuissimâ, olivaceo-fuscâ, obliquè subovatâ, tenuissimè striato-punctuatâ; spirâ productâ, acuminatâ, anfractibus*

medianis distinctiis, versùs suturam tumidis, apicalibus parvis; ultimo anfractu inflato, supernè subgibboso, anticè attenuato, acuminato; columellâ tenuissimâ, plicâ conspicuâ, elevatâ.

THE PUNCTURED PHYSA. Shell very thin, olive-brown, obliquely subovate, very finely punctured in striæ; spire produced, acuminated, middle whorls distinct, tumid towards the suture, those of the apex small; last whorl inflated, rather gibbous above, attenuated in front, acuminated; columella very thin, plait conspicuous, elevated.

SOWERBY.

Hab. Australia

Species 92. (Fig. *a*, *b*, Mus. Brit.)

PHYSA CONTORTA. *Phy. testâ parvâ, corneâ, brevi, inflatâ; spirâ brevi, acuminatâ, anfractibus paucis, distinctis; ultimo anfractu brevi, lato, subcylindrico; aperturâ angustâ, rectiùsculâ, plicâ columellari inconspicuâ.*

THE CONTORTED PHYSA. Shell small, horny, short, inflated; spire short, acuminated, whorls few, distinct; last whorl short, broad, somewhat cylindrical; aperture narrow, rather straight, columella fold inconspicuous.

MICHAUD —— ?

Hab. Cape of Good Hope.

67 b

93 a

93

94

95

96

97

98

99

100

Sowerby del. et lith.

Vincent Brooks Day & Son, Imp.

PHYSA.

PLATE XII.

(Fig. 67, *b*, Mus. Sowerby.)

PHYSA AURICULATA. From a more characteristic specimen than in Plate IX.

Species 93. (Fig. *a*, *b*, Mus. Sowerby.)

PHYSA PINGUIS. *Phy. testâ ovatâ, tumidâ, castaneâ vel pallidè olivaceâ, distanter fusco fasciatâ; spirâ brevi, anfractibus apicalibus parvis, penultimo valdè inflato, brevi, ultimo ovato, propè suturam subgibbosâ; aperturâ intùs corneâ, frequenter castaneo fasciatâ; columellâ intùs subduplicatâ.*

THE STOUT PHYSA. Shell ovate, tumid, chestnut or pale olive, distantly banded with brown; spire short, apical whorls small, penultimate much inflated, short, the last ovate, rather gibbous near the suture; aperture horny within, often banded with chestnut; columella somewhat duplicate within.

SOWERBY.

Hab. South Australia.

The doubling of the columellar fold, which may be observed by turning the shell a little, is a character much more conspicuously presented in Species 100.

Species 94. (Mus. Legrand.)

PHYSA ATTENUATA. *Phy. testâ pyramidatâ, acuminatâ, obliquâ, fusco-corneâ, longitudinaliter tenuiter striatâ; spirâ productâ, anfractibus æqualiter crescentibus, declivibus, penultimo longiùsculo; aperturâ auriformi, intùs purpureâ, labio externo sinuato, columellâ tenui, plicâ elevatâ.*

THE ATTENUATED PHYSA. Shell pyramidal, acuminated, oblique, horny-brown, longitudinally finely striated; spire produced, whorls equally increasing, sloped, last rather long; aperture ear-shaped, purple within, outer lip sinuous, columella thin, fold raised.

SOWERBY.

Hab. Dulverton Lake, Australia.

This species nearly resembles *Physa mamillata* in general appearance, but it has not the sudden swell of the penultimate whorl whence that shell derives its name.

Species 95. (Mus. Sowerby.)

PHYSA TEXTURATA. *Phy. testâ subfusiformi, solidiùsculâ, fumoso-olivaceâ, minutissimè striis spiralibus et concentricis texturatâ; spirâ acuminatâ, ferè aperturam longitudine æquanti, anfractibus declivibus, rapidè crescentibus; ultimo anfractu ovato, tumido; aperturâ intùs fuscâ, columellâ crassiùsculâ, vix plicatâ.*

THE TEXTURED PHYSA. Shell subfusiform, rather solid, smoky-olive, very minutely textured with spiral and concentric striæ; spire acuminated, nearly equalling the aperture in length, whorls sloped, rapidly increasing; last whorl ovate, tumid; aperture brown within; columella rather thick, scarcely plaited.

SOWERBY.

Hab. South Australia.

Under the lens this shell appears as if impressed with a fine woven fabric.

Species 96. (Mus. Sowerby.)

PHYSA PAPYRACEA. *Phy. testâ oblongo-subcylindricâ, tenuissimâ, pallidè corneâ, minutissimè subundulatim striatâ; spirâ brevi; ultimo anfractu oblongo, ad laterâ paulò compresso; columellâ tenui, arcuatâ, plicâ vix conspicuâ.*

THE PAPER PHYSA. Shell oblong-subcylindrical, very thin, pale horny, with very minute undulated striæ; spire short; last whorl oblong, a little compressed at the sides; columella thin, arched, plait hardly conspicuous.

SOWERBY.

Hab. ——?

A remarkably thin, subcylindrical shell.

Species 97. (Mus. Sowerby.)

PHYSA BULLATA. *Phy. testâ majusculâ, tenuissimâ, fusco-corneâ, distanter fusco fasciatâ, ovato-inflatâ; rugis tenuibus longitudinalibus leviter undulatâ; spirâ brevi, anfractibus apicalibus minutis, penultimo brevi, inflato; ultimo inflato, supernè gibboso, anticè subattenuato; aperturâ elongatâ, subauriformi; columellâ tortuâ, plicâ tenui, prominenti.*

THE BUBBLE PHYSA. Shell rather large, rather thin, horny-brown, distantly banded with brown; ovate-inflated, lightly undulated with fine longitudinal wrinkles; spire short, apical whorls minute, penultimate inflated, last inflated, gibbous above, rather attenuated anteriorly; aperture elongated, somewhat auriform; columella tortuous, fold thin, prominent.

SOWERBY.

Hab. South Australia.

Physa castanea is a much more solid and angular shell than this.

Species 98. (Fig. *a*, *b*, Mus. Legrand.)

PHYSA NITIDA. *Phy. testâ parvâ, subfusiformi, pallidè fulvâ, lævigatâ, obliquâ; spirâ breviùsculâ, anfractibus apicalibus acuminatis, parvis, penultimo inflato; ultimo anfractu ovato, tumidiùsculo, anticè rotundo; aperturâ ovatâ, columellâ tortuâ, plicâ inconspicuâ.*

THE NEAT PHYSA. Shell small, subfusiform, pale fulvous, smooth, oblique; spire rather short, apical whorls acuminated, small, the penultimate inflated; last whorl ovate, rather tumid, anteriorly rounded; aperture ovate, columella tortuous, plait inconspicuous.

SOWERBY.

Hab. In creeks of South-east Tasmania.

Species 99. (Fig. *a*, *b*, Mus. Legrand.)

PHYSA BRUNNIENSIS. *Phy. testâ parvâ, oblongâ, angustâ, pellucidâ, nitenti; spirâ breviùsculâ, anfractibus tribus, distinctis, propè suturam gibbosis, ultimo oblongo; aperturâ angustiùsculâ, columellâ tenuissimâ, plicâ inconspicuâ.*

THE BRUNNI ISLAND PHYSA. Shell small, oblong, narrow, pellucid shining; spire rather short, whorls three, distinct, gibbous near the suture, the last oblong; aperture rather narrow, columella very thin, plait inconspicuous.

SOWERBY.

Hab. Brunni Island, Australia.

I am not aware of this pretty little species having been named before.

Species 100. (Mus. Sowerby.)

PHYSA DUPLICATA. *Phy. testâ solidâ, castaneâ, breviùsculâ; spirâ acuminatâ, anfractibus obliquis, declivibus, ultimo inflato, breviùsculo; aperturâ subovatâ, quam spirâ longiori; labio externo sinuato; columellâ rectiùsculâ, incrassatâ, plicâ duplicatâ.*

THE DOUBLE-PLAITED PHYSA. Shell solid, chestnut, rather short; spire acuminated, whorls oblique, sloped, the last inflated, rather short; aperture subovate, longer than the spire; outer lip sinuated; columella rather straight, thickened, with a double plait.

SOWERBY.

Hab. Wide Bay, Australia.

PHYSA.

	Plate.	Species.
aciculata, *Sowerby*	VIII.	59
acuminata, *Gray ?*	III.	23
acuta, *Draparnaud*	II.	8
Africana, Adams	I.	2
Africana, *Krauss*	I.	2
Algoensis, *Morelet*	VII.	53
Aliciæ, *Reeve*	I.	6
amygdalus, *Sowerby*	VIII.	63
ancillaria, *Say*	I.	3
antipodea, *Sowerby*	V.	37
aperta, *Sowerby*	XI.	88
attenuata, *Sowerby*	XII.	94
aurantia, ——?	II.	13
auriculata, *Gassies*	XI.	67
(And Fig. 67 *b*, Pl. XII.)		
badia, *Adams and Angas*	VII.	51
Benguelensis, *Sowerby*	IX.	77
bonus Henricus, *Adams and Angas*	V.	38
Brunniensis, *Sowerby*	XII.	99
bullata, *Sowerby*	XII.	97
Caledonica, *Morelet*	IX.	69
carinata, *H. Adams*	III.	18
castanea, *Sowerby*	X.	86
concinna, *Adams and Angas*	V.	35
contorta, *Michaud*	XI.	92
Cubensis, *Pfeiffer*	VII.	50
Cumingii, *H. Adams*	VI.	44
cylindrica, *De Kay*	IX.	75
diaphana, *Krauss*	X.	81
dispar, *Sowerby*	VIII.	66
distorta, *Haldeman*	IX.	72
duplicata, *Sowerby*	XII.	100
eburnea, *Sowerby*	XI.	89
elliptica, *Lea*	IX.	73
elongata, *Say*	IV.	30
ferruginea, *Adams and Angas*	IV.	25
fontinalis, *Linnæus*	I.	1
fragilis, *Mighaels*	IV.	26
fusca, *Rosmässler*	IX.	76
gibbosa, *Gould*	IV.	27
granulata, *Shuttleworth*	V.	39
Guilliani, *Crosse et Marie*	X.	84
gyrina, *Say*	V.	36
heterostropha, *Say*	VI.	45
Hildrethianæ, *Lea*	II.	9
humerosa, *Gould*	VI.	41
hypnorum, *Linnæus*	I.	7
(And Fig. 7 *b*, *c*, Pl. XI.)		
inflata, *Adams and Angas*	I.	4
influviata, *Morelet*	II.	16
integra, *Haldeman*	III.	19
Jukesii, *A. Adams*	IX.	71
Kanakina, *Gassies*	IX.	68
latilabiata, *Sowerby*	V.	33
Lordi, *Baird*	IV.	28
mæsta, *H. Adams*	IV.	32
mamillata, *Sowerby*	XI.	90
Mareotica, *Sowerby*	X.	78
Maugeriæ, *Quoy*	II.	11
microstoma, *Haldeman*	X.	80
Natalensis, *Krauss*	X.	79
neritoidea, *Sowerby*	X.	82
Newcombi, *Adams and Angas*	III.	21
nitida, *Sowerby*	XII.	98
Novæ Hollandiæ, *Blainville*	II.	10
Novæ Zelandiæ, *Gray*	IV.	29
obesa, *H. Adams*	III.	24
olivacea, *Adams and Reeve*	V.	34
papyracea, *Sowerby*	XII.	96
Peruviana, *Gray*	II.	12
pinguis, *Sowerby*	XII.	93
plicata, *De Kay*	IX.	70
proteus, *Sowerby*	VI.	43
puncturata, *Sowerby*	XI.	91
pyramidata, *Sowerby*	VIII.	62
Reevii, *Adams and Angas*	VI.	40
reticulata, *Gould*	VII.	56
rivalis, *Sowerby*	IV.	31

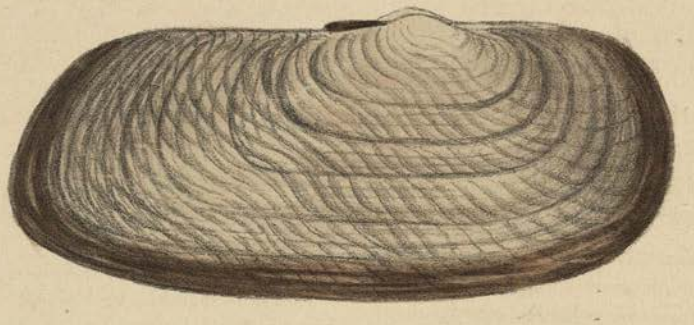
	Plate.	Species.
Salleanæ, *Pfeiffer*	III.	22
Sayi, *Gray*	VII.	52
semiglobosa, *Westerland*	VI.	42
sinuata, *Gould*	VII.	55
solida, *Philippi*	II.	14
Sowerbyana, *Orbigny*	VI.	47
spiculata, *Morelet*	VI.	46
striata, *Orbigny*	VIII.	64
subinflata, *Sowerby*	I.	5
subrotunda, *Sowerby*	X.	87
subundata, *Sowerby*	VIII.	61
tabulata, *Gould*	III.	17
tenuistriata, *Sowerby*	X.	85
terebra, *Benson*	X.	83
tetrica, *Morelet*	VIII.	60
texurata, *Sowerby*	XII.	95
Tongana, *Quoy*	VII.	54
triticea, *Lea*	VII.	49
tropica, *Krauss*	V.	32*
truncata, *H. Adams*	III.	20
Vandiemenensis, *Sowerby*	VIII.	57
ventricosa, *Guilding*	IX.	74
vinosa, *Gould*	II.	15
virgata, *Gould*	VII.	48
vitræa, *Parreys*	VIII.	65
Walbergii, *Sowerby*	VIII.	58

MONOGRAPH

OF THE GENUS

SOLECURTUS.

"For the dear God, who loveth us,
He made and loveth all."—*Coleridge.*



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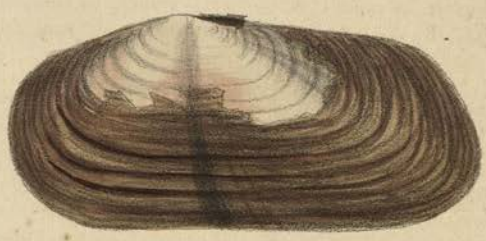

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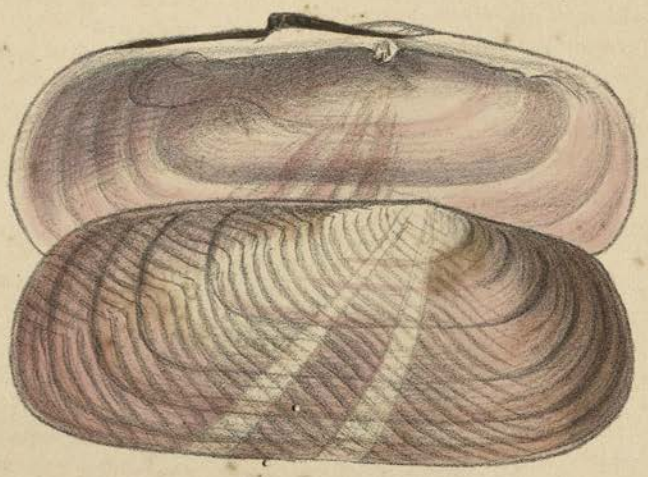

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Sowerby del et lith.

Vincent Brooks Day & Son Imp

SOLECURTUS.

PLATE I.

Genus SOLECURTUS, *Blainville.*

Testa transversè oblonga, bimusculosa, utrinquè truncata, hians; medio planulato, umbonibus centralibus vel subcentralibus. Impressio pallii latè sinuata, ligamentum externum. Dentes cardinales uncinnati.

Shell transversely oblong, bimuscular, truncated and gaping at each end; flattened in the middle, with central or subcentral umboes. Palleal impression broadly sinuous. Ligament external, cardinal teeth hooked.

Our *Solecurti* will be found to include the genera *Macha*, *Pharella*, *Siliquaria*, and *Novaculina* of modern authors; so that, with the exception of *Pharus*, all the *Solenidæ* are divided into, first, SOLEN proper, with the umboes terminal; second, CULTELLUS, with the umboes much one-sided, although not terminal; and third, SOLECURTUS, with umboes central, or nearly central. And this distribution by the position of the hinge is pretty generally concurrent with other characters of the shells. The geographical distribution of these, like that of other *Solenidæ*, does not appear to be guided by any general rule. We have a couple of species on our own coast; *Novaculina* is found in the mud of Indian and Chinese rivers. North and South America, Africa and Australia, contribute each a few species.

Species 1. (Mus. Brit.)

SOLECURTUS EXARATUS. *Sol. testâ rhomboideâ, albâ, sulcis distantibus, obliquis, divaricatis sculptâ; margine dorsali recto, umbonibus haud prominentibus; latere antico breviusculo, ad terminum dorsalem cuneato; latere postico elongato, ad terminum obliquè truncato; margine ventrali subconvexo.*

THE PLOUGHED SOLECURTUS. Shell rhomboidal, white, sculptured with distant, oblique, diverging grooves; dorsal margin straight, umboes not prominent; anterior side rather short, cornered at the end; posterior side elongated, obliquely truncated at the end; ventral margin a little convex.

PHILIPPI. Abbildungen, &c.

Hab. China.

A white shell of more angular form than *S. strigilatus.*

Species 2. (Mus. Brit.)

SOLECURTUS OBLONGUS. *Sol. testâ transversè elongatâ, albâ, concentricè rugatâ, anticè obscurè sulcis numerosis obliquis, divaricatis sculptâ, medio planulato, sulco complanato impresso; latere antico breviusculo, subacuminato; latere postico elongato, ad terminum subrotundo, margine dorsali subexcavato, margine ventrali recto.*

THE OBLONG SOLECURTUS. Shell transversely elongated, white, concentrically wrinkled, anteriorly obscurely sculptured with numerous oblique diverging sulci, flattened in the middle, impressed with a flattened sulcus; anterior side rather short, rather acuminated; posterior side elongated, rather rounded at the end, with dorsal margin a little hollowed, ventral margin straight.

DOHRN. Proc. Zool. Soc., 1861.

Hab. Isl. Luzon.

Much narrower than *Solecurtus Scheepmacheri*, with dorsal margin excavated, and posterior side more produced.

Species 3. (Mus. Brit.)

SOLECURTUS SOLIDUS. *Sol. testâ subrhomboideâ, oblongâ, albâ, epidermide fuscâ, rugatâ indutâ; latere antico breviusculo, subattenuato, margine dorsali declivi, margine ventrali acclivi; medio planulato, subcontracto, sulco impresso; latere postico rugato,*

obtusè angulato, oblongo, margine dorsali recto, terminali obliquè truncato.

The solid Solecurtus. Shell subrhomboidal, oblong, white, covered with a brown wrinkled epidermis; anterior side rather short, rather attenuated, dorsal margin sloped downwards, ventral sloped upwards; middle flattened, rather contracted, impressed with a groove; posterior side rugose, obtusely angular, oblong, dorsal margin straight, terminal obliquely truncated.

Gray. Spicelegia Zoologica, t. 3, f. 12.

Hab. Peru.

Species 4. (Mus. Brit.)

Solecurtus strigilatus. *Sol. testâ convexâ, solidâ, utrinquè obtusè truncatâ, latè hianti; roseâ, medio albo biradiatâ, sulcis obliquis, divaricatis, ad angulum posticum angulatis sculptâ; latere postico oblongo; latere antico obtusè truncato.*

The curry-combed Solecurtus. Shell convex, solid, obtusely truncated on each side, broadly gaping; pink, with two white rays in the middle, sculptured with oblique, diverging sulci, angular at the posterior angle; posterior side oblong; anterior side obtusely truncated.

Linnæus. Systema Naturæ.

Hab. Mediterranean and Atlantic.

The British *Solecurtus candidus* was formerly supposed to belong to this species.

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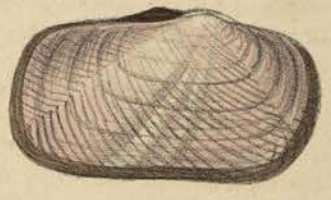

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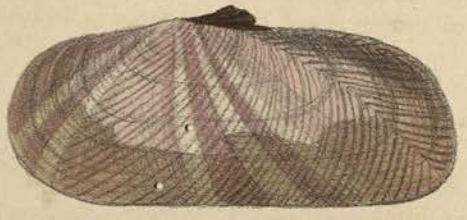

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SOLECURTUS.

PLATE II.

Species 5. (Mus. Brit.)

SOLECURTUS QUOYI. *Sol. testâ obliquâ, inæquilaterali, albâ, medio et posticè distanter et obliquè sulcatâ; sulcis propè marginem dorsalem retrorsim angulatis; latere antico brevi, rotundato; latere postico arcuato, obliquè truncato; margine dorsali utrinquè excavato; margine ventrali convexo.*

QUOY'S SOLECURTUS. Shell oblique, inequilateral, white, distantly and obliquely grooved in the middle and posteriorly; grooves angularly turned back near the dorsal margin; anterior side short, rounded; posterior side curved, obliquely truncated; dorsal margin excavated on both sides; ventral margin convex.

DESHAYES. MS. in the Cumingian collection.

Hab. Philippines.

Rather an arched species with few curved grooves.

Species 6. (Fig. *a*, *b*, Mus. Brit.)

SOLECURTUS ABBREVIATUS. *Sol. testâ pallidè fulvâ, compressâ, utrinquè truncatâ, paulò apertâ; concentricè rugatâ; latere postico obliquè truncato; latere antico breviùsculo; medio sulco latò depresso; intùs medio leviter costato; margine ventrali recto, ad sulcum medianum sinuato; margine dorsali utrinquè declivi.*

THE ABBREVIATED SOLECURTUS. Shell pale fulvous, compressed, truncated at each end, a little open; concentrically wrinkled; posterior side obliquely truncated, anterior side rather short; middle depressed with a broad groove, slightly ribbed at the middle within; ventral margin straight, sinuous at the medial groove; dorsal margin sloped at each side.

GOULD.

Hab. Malacca.

Species 7. (Mus. Brit.)

SOLECURTUS DESHAYESII. *Sol. testâ albidâ, rectâ, propè marginem anticum lævi, deindè obliquè subdivaricatim sulcatâ; latere postico elongato, obliquè truncato; margine ventrali rectiùsculo, medio subcontracto; sulcis propè marginem dorsalem angulatim retrorsis.*

DESHAYES' SOLECURTUS. Shell whitish, straight, smooth near the anterior margin, thence obliquely, somewhat divergently grooved; posterior side elongated, obliquely truncated; ventral margin rather straight; middle slightly contracted; grooves turned back angularly near the dorsal margin.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Moreton Bay, Australia.

There are no distinct rays of colour, but a slight central contraction in this shell, and the grooves are coiled up towards the dorsal margin, and then turned back at a sharp angle.

Species 8. (Mus. Brit.)

SOLECURTUS COARCTATUS. *Sol. testâ oblongâ, pallidè fulvâ, compressâ, epidermide rugato indutâ, medio coarctatâ, lævigatâ, utrinquè subtruncatâ, hianti; margine dorsali subdeclivi.*

THE NARROWED SOLECURTUS. Shell oblong, pale fulvous, compressed, covered with a wrinkled epidermis, narrowed in the middle, smooth, rather truncated and open at each end; dorsal margin somewhat sloped.

LINNÆUS. Systema Naturæ.

Hab. Naples.

In *Solecurtus abbreviatus* and *S. antiquatus*, the depression in the centre is defined at the edges so as to form a groove. This is not the case in the present species.

Species 9. (Mus. Brit.)

SOLECURTUS SANCTÆ-MARTHÆ. *Sol. testâ brevi, altâ, albâ, oblongo-subquadratâ, utrinquè latè hianti, et*

truncatâ, versùs marginem anticum lævi, inde obliquè et crebrè sulcatâ; sulcis post medium angulatim divaricatis; latere postico oblongo, latere antico brevi; margine ventrali subcontracto.

The St. Martha Solecurtus. Shell short, elevated, white, oblong-squarish, gaping and truncated widely at each end, smooth towards the anterior margin, thence obliquely and closely grooved; grooves angularly divergent behind the middle; posterior side oblong, anterior side short; ventral margin rather contracted.

Dunker. MS. Brit. Mus.

Hab. North Australia.

The angles in the sulci radiate from the umbo to the ventral margin of the posterior terminus. It is a deep and widely gaping species resembling *S. strigilatus*, but shorter.

Species 10. (Mus. Brit.)

Solecurtus Australis. *Sol. testâ oblongâ, subdepressâ, tenui, roseâ, radiatim albo fasciatâ, anticè propè marginem lævigatâ, ferè omnino tenuiter creberrimè sulcatâ; sulcis posticè acutè angulatis; angulis a termino radiatim distantibus.*

The Australian Solecurtus. Shell oblong, subdepressed, thin, pink, radiately white-banded, anteriorly smooth near the margin, nearly all over finely very closely grooved; grooves posteriorly sharply angular; angles distant from the end in a radiating direction.

Dunker. Proc. Zool. Soc., 1861.

Hab. Moreton Bay.

The sculpture of this species is very fine, and the angles of the sulci radiate from the umboes to the posterior ventral angle.

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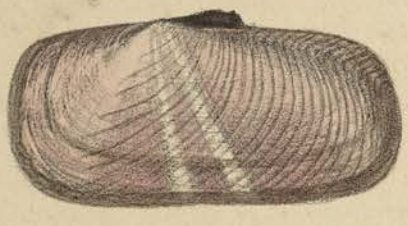

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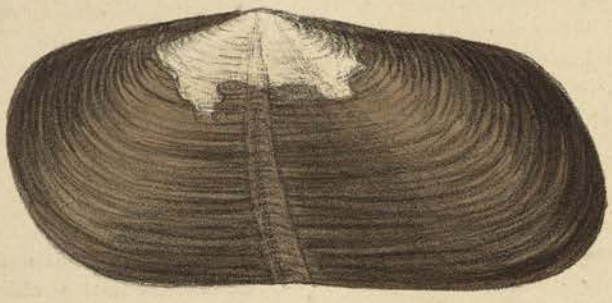

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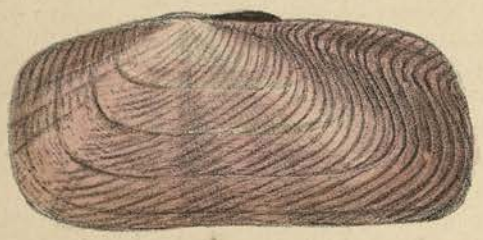

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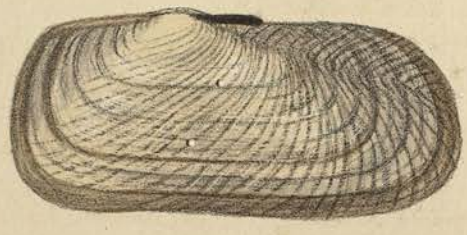

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Sowerby del et lith

Vincent Brooks Day & Son lmp

SOLECURTUS.

PLATE III.

Species 11. (Mus. Brit.)

SOLECURTUS MINUTUS. *Sòl. testâ parvâ, albidâ, semi-pellucidâ, compressâ, subreniformi, lævigatâ, anticè concentricè rugatâ; latere antico breviùsculo, medio coarctato, sinuato; latere postico attenuato, obliquo, subacuminato.*

THE MINUTE SOLECURTUS. Shell small, whitish, semi-pellucid, compressed, slightly reniform, smooth anteriorly concentrically wrinkled; anterior side rather short; middle narrowed, sinuous; posterior side thin, oblique, rather acuminated.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Moreton Bay.

Species 12. (Mus. Brit.)

SOLECURTUS PHILIPPINARUM. *Sol. testâ oblongâ, utrinquè truncatâ, hianti, roseâ, medio fasciis albis biradiatâ; anticè lævigatâ, versùs angulum anticum, medio et posticè sulcis obliquè arcuatis; propè marginem posticum dorsalem angulatis et divaricatis sculptâ; marginibus dorsali ventralique rectis.*

THE PHILIPPINE SOLECURTUS. Shell oblong, truncated at each end, gaping, pink, with two white rays in the middle; smooth anteriorly, towards the anterior angle, in the middle and posteriorly sculptured with obliquely arched sulci; angular and divergent near the posterior dorsal margin; dorsal and ventral margins straight.

DUNKER. Proc. Zool. Soc., 1874.

Hab. Philippines.

This species resembles *Solecurtus strigilatus*, but has a wide anterior space without sulci, and the angles of the posterior sulci are in a line near the posterior dorsal margin.

Species 13. (Mus. Brit.)

SOLECURTUS ANTIQUATUS. *Sol. testâ compressâ, oblongâ, sordidâ, epidermide fumoso-fusco indutâ, ad latera concentricè rugatâ; latere antico angustiùsculo, ad terminum rotundato; medio subexcavato, subcoarctato, radiatim unisulcato; latere postico paulò longiore, latiore, obliquè subtruncato; umbonibus subcentralibus; margine antico-dorsali declivi.*

THE ANTIQUATED SOLECURTUS. Shell compressed, oblong, dingy, covered with a smoky-brown epidermis, concentrically wrinkled at the sides; anterior side rather narrow, rounded at the end; somewhat excavated and narrowed in the middle, with a radiating groove; posterior side a little longer and wider, a little truncated obliquely; umboes subcentral; antero-dorsal margin sloped downwards.

PENNANT. Zoology.

Hab. Mediterranean.

Species 14. (Mus. Brit.)

SOLECURTUS SCHEEPMACHERI. *Sol. testâ oblongâ, trapezoideâ, utrinquè subtruncatâ, obliquâ, paulò hianti; concentricè rugatâ, sordidè albâ, epidermide rugoso indutâ, medio planulato, depresso, radiatim unisulcato; margine ventrali recto; margine dorsali utrinquè declivi; latere antico breviùsculo.*

SCHEEPMACHER'S SOLECURTUS. Shell oblong, trapezoidal, rather truncated, oblique and a little gaping at each end; concentrically wrinkled, dull white, covered with a rough epidermis; flattened, depressed, and with a single radiating groove in the middle; ventral margin straight, dorsal margin sloped at each end; anterior side rather short.

DUNKER. Proc. Zool. Soc., 1861.

Hab. ——?

One of the largest of this depressed form.

Species 15. (Mus. Brit.)

SOLECURTUS SULCATUS. *Sol. testâ oblongâ, roseâ, utrinquè truncatâ, antè medium et deindè ad terminum*

posticum profundè sulcato; sulcis subdistantibus, undulatim curvis, propè marginem dorsalem recurvis; latere antico brevi, propè marginem dorsalem concentricè rugato, margine dorsali declivi; latere postico elongato; margine dorsali paulò arcuato.

THE GROOVED SOLECURTUS. Shell oblong, pink, truncated at each end, deeply grooved before the middle and thence to the posterior end; grooves rather distant, curved in waves, recurved near the dorsal margin; anterior side short, concentrically grooved near the dorsal margin; dorsal margin sloped; posterior side elongated; dorsal margin a little arched.

DUNKER. Proc. Zool. Soc., 1861.

Hab. Moreton Bay.

The wavily grooved sculpture of this species is very remarkable.

Species 16. (Mus. Brit.)

SOLECURTUS ALBUS. *Sol. testâ elongatâ, angustâ, subcompressâ, utrinquè paulò hianti, albâ; latere antico brevi, radiatim leviter costatâ; latere postico elongato, versùs umbones obliquè sulcato, versùs terminum concentricè rugato, margine terminali rotundo; margine ventrali subexcavato.*

THE WHITE SOLECURTUS. Shell elongated, narrow, rather compressed, a little gaping at each end, white; anterior side short, slightly radiately ribbed; posterior side elongated, obliquely grooved towards the umboes; concentrically wrinkled towards the end, terminal margin rounded; ventral margin a little excavated.

MARTYN. —— ?

Hab. —— ?

The oblique grooves are few and slight, and the shell is very inequilateral.

Species 17.. (Mus. Brit.)

SOLECURTUS CANDIDUS. *Sol. testâ oblongâ, albâ, subdepressâ, inæquilaterali, utrinquè hianti, propè terminum anticum lævigatâ; ferè omnino obliquè sulcato; sulcis versùs marginem dorsalem angulatis, recurvis; latere antico brevi, truncato; latere postico subrotundo; margine ventrali medio concavo.*

THE CANDID SOLECURTUS. Shell oblong, white, subdepressed, inequilateral, gaping at each end, smooth near the anterior end; obliquely grooved nearly all over; grooves towards the dorsal margin angular and recurved; anterior side short, truncated; posterior side rather rounded; ventral margin concave in the middle.

RENIERI. Desh. Traité Elémentaire.

Hab. British and Mediterranean Seas.

The British specimens are much smaller than the one here figured.

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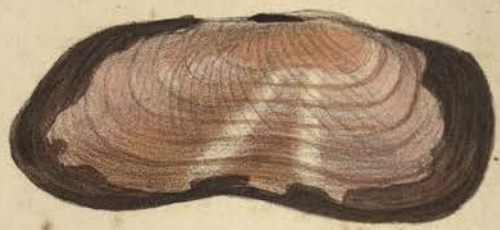

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21a

21b

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

SOLECURTUS.

PLATE IV.

Species 18. (Mus. Sowerby.)

SOLECURTUS CENTRALIS. *Sol. testâ oblongâ, inflatâ, albidâ, epidermide olivaceo-fusco indutâ; latere antico elongato, ventricoso, versùs terminum rugato, margine terminali infrà sursùm acclivi, suprà subcuneato; margine dorsali elevato, subarcuato; latere antico breviori, angusto, obliquè angulato, ad terminum truncato; margine ventrali medio subcontracto.*

THE CENTRAL SOLECURTUS. Shell oblong, inflated, whitish, covered with an olive-brown epidermis; anterior side elongated, ventricose, wrinkled towards the end, terminal margin below sloped upwards, above cuneated; dorsal margin elevated, a little arched; anterior side rather shorter, narrow, obliquely angular, truncated at the end; ventral margin a little contracted.

CONRAD ——?

Hab. Georgia.

This, like several other approximate species, has the greater length at the anterior side.

Fig. 19. (Mus. Sowerby.)

SOLECURTUS ANTIQUATUS. Species 13, Plate III. It was not till after the plates were printed that the identity of this shell was discovered. It is a very different variety.

Species 20. (Mus. Sowerby.)

SOLECURTUS SEMINUDUS. *Sol. testâ oblongâ, inflatâ, versùs umbones mediumque obliquè, distanter sulcatâ; utrinquè truncatâ, latè hianti, carneâ, fasciis albidis duabus medio radiatâ; latere antico brevi, cuneato, subquadrato; latere postico producto, margine terminali obliquè truncato; margine dorsali recti; margine ventrali medio excavato.*

THE HALF-BARE SOLECURTUS. Shell oblong, inflated, obliquely and distantly grooved towards the umbones and centre, truncated at each end, broadly gaping, flesh-coloured, rayed with two whitish bands in the middle; anterior side short, cuneated, nearly square; posterior side produced, terminal margin obliquely truncated; dorsal margin straight; ventral margin excavated in the middle.

SOWERBY.

Hab. ——?

This shell has a peculiar contraction in the middle, and the oblique diverging grooves only extend from the umbonal region to near the middle, then dying out so as to leave the rest of the surface smooth and bare. It has a general resemblance to *Solecurtus strigilatus*, from which it is evidently distinct.

Species 21. (Fig. *a*, *b*.)

SOLECURTUS CARIBÆUS. *Sol. testâ oblongâ, albidâ, retiùsculâ; latere antico quam posticum longiori, rotundo, supernè obscurè cuneato; latere postico obtusè angulato, angustiùsculo, margine terminali latè truncato; margine dorsali anticè recto, posticè excavato, margine ventrali recto.*

THE CARIBEAN SOLECURTUS. Shell oblong, whitish, rather straight; anterior side larger than the posterior, rounded, obscurely cuneated above; posterior side obtusely angular, rather narrow, terminal margin broadly truncated, dorsal margin anteriorly straight, posteriorly excavated; ventral margin straight.

LAMARCK. Anim. s. Vert. Solen, Sp. 13.

Solen Guineensis, Delwyn.

Hab. America.

The difference in form between this and Species 18, will be apparent to the eye.

22 a.

22 b.

23

24

25 a.

25 b.

Sowerby del et lith.

Vincent Brooks Day & Son Imp

SOLECURTUS.

PLATE V.

Species 22. (Fig. *a*, *b*, Mus. Brit. and Sowerby.)

SOLECURTUS COQUIMBENSIS. *Sol. testâ oblongâ, fasciis latis purpureis radiatâ, medio planatâ, anticè posticèque rugatâ; latere antico quam posticus paulò breviori, margine dorsali declivi; latere postico ad terminum supernè declivi, margine dorsali propè umbones excavato; margine ventrali recto.*

THE COQUIMBO SOLECURTUS. Shell oblong, rayed with broad purple bands, flattened in the middle, wrinkled in front and behind; anterior side a little shorter than posterior, with dorsal margin sloped; posterior side sloped above at the end with dorsal margin excavated near the umbones; ventral margin straight.

SOWERBY.

Hab. Coquimbo.

The smaller specimen is in the British Museum marked as *Dombeyi*, to which I do not think it belongs. The locality attached is as stated above.

Species 23. (Mus. Sowerby.)

SOLECURTUS CYLINDRICUS. *Sol. testâ oblongâ, angustâ, gibbosâ utrinquè obliquè angulatâ; albâ, epidermide fusco rugato indutâ; latere antico quam anticus longiori, ad terminum acutè angulato; latere postico angustiori, breviori, subtruncato, margine dorsali depresso, subexcavato; margine ventrali recto.*

THE CYLINDRICAL SOLECURTUS. Shell oblong, narrow, gibbous, obliquely angular at both ends; white, covered with a brown rough epidermis; anterior longer than posterior side, sharply angular at the end; posterior side narrower, shorter, subtruncated, with the dorsal margin depressed, rather excavated; ventral margin straight.

SOWERBY.

Hab. —— ?

Differing from *Sol. Caribæus* in the narrowness and straightness of the general form and the angularity of the oblique slope at each end.

Species 24. (Mus. Brit.)

SOLECURTUS VIOLASCENS. *Sol. testâ elongatâ, compressâ, utrinquè truncatâ, fasciis pallidis purpureis latis radiatâ, epidermide pallidè fusco indutâ; latere antico elongato, attenuato; latere postico breviùsculo, latiori, margine dorsali subelevato, margine ventrali ad terminum sursùm acclivi.*

THE PURPLISH SOLECURTUS. Shell elongated, compressed, truncated at each end, rayed with broad pale purple bands, covered with a pale brown epidermis; anterior side elongated, attenuated; posterior side rather shorter, broader, dorsal margin a little raised, ventral margin sloped upwards at the end.

DESHAYES —— ? MS. Brit. Mus.

Hab. S. W. Mexico.

Species 25. (Fig. *a*, *b*, Mus. Sowerby.)

SOLECURTUS ACUTIDENS. *Sol. testâ elongatâ, angustâ, tenui, utrinquè angulatâ, versùs terminos validè liratâ; latere antico brevi, margine terminali rotundo; latere postico elongato, ad terminum subtruncato; medio complanato, margine ventrali subcontracto.*

THE SHARP-TOOTH SOLECURTUS. Shell elongated, narrow, thin, angular at each end, strongly ridged towards the ends; anterior side short, with terminal margin rounded; posterior side elongated, somewhat truncated at the end; flattened in the middle, ventral margin a little contracted.

SOWERBY AND BRODERIP. Zoological Journal, vol. iv.

Solen Michaudi, Cailland.

Hab. Sumatra.

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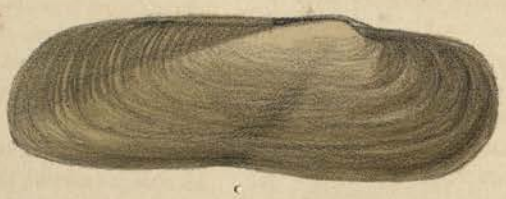

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

SOLECURTUS.

PLATE VI.

Species 26. (Mus. Brit.)

SOLECURTUS MOLLIS. *Sol. testâ pallidâ, oblongâ, anticè posticèque rugatâ, medio complanatâ, sulco obliquo radiatâ, latere antico brevi, subrotundo; latere postico producto, recto, margine terminali latè truncato; margine dorsali recto; margine ventrali medio paulò contracto.*

THE SOFT SOLECURTUS. Shell pale, oblong, anteriorly and posteriorly wrinkled, flattened in the middle, rayed with an oblique groove; anterior side short, rather rounded; posterior side produced, straight, with the terminal margin broadly truncated; dorsal margin straight; ventral margin a little contracted in the middle.

GOULD ——? MS. Mus. Brit.

Hab. ——?

Much less oblique and more straightly truncated than *Solecurtus constrictus*, Lamarck.

Species 27. (Mus. Brit.)

SOLECURTUS RUFUS. *Sol. testâ compressâ, elongatâ, subreniformi, subæquilaterali, purpureâ, albo radiatâ, epidermide aureo-fusco indutâ; margine dorsali arcuato, utrinquè declivi, terminibus rotundis; margine ventrali arcuatim concavo.*

THE RED SOLECURTUS. Shell compressed, elongated, somewhat kidney-shaped, nearly equilateral, purple rayed with white, covered with a golden brown epidermis; dorsal margin arched, sloped downwards at each end; ends rounded; ventral margin concave in an arch.

BOSCH. ——?

Hab. ——?

The two ends of this shell are bent down so as to form an arch of the whole.

Species 28. (Mus.—— ? copied.)

SOLECURTUS INÆQUALIS. *Sol. testâ elongatâ, subinflatâ, posticè angulatâ; purpureo latè radiatâ; latere antico brevi, truncato; latere postico perelongato, subexpanso, ad terminum rotundatim truncato; margine dorsali antè umbones excavato, post umbones recto, versùs terminum elevato; margine ventrali ferè recto.*

THE UNEQUAL SOLECURTUS. Shell elongated, rather inflated, posteriorly angular; broadly rayed with purple; anterior side short, truncated; posterior side very long, rather expanded, roundly truncated at the end; dorsal margin excavated in front of the umboes, straight behind the umboes, raised towards the end; ventral margin nearly straight.

SOWERBY. Reeve, Conch. Cyst. Pl. XXVI.

Solecurtus Dombei, Reeve, not Lamarck.

Hab. ——?

It has been found desirable to copy the figure representing the type.

Species 29. (Mus. Brit.)

SOLECURTUS CONSTRICTUS. *Sol. testâ oblongâ, subcompressâ, utrinquè rugatâ, pallidâ, epidermide tenui indutâ, medio complanatâ, sulco obliquo radiatâ; latere antico brevi, margine dorsali producto; latere postico perelongato, margine terminali obliquè truncato, margine ventrali producto.*

THE CONSTRICTED SOLECURTUS. Shell oblong, subcompressed, wrinkled at each end, pale, covered with a thin epidermis, middle flattened, rayed with an oblique sulcus; anterior side short, with dorsal margin produced; posterior side much lengthened, terminal margin obliquely truncated, ventral margin produced.

LAMARCK. Anim. sans Vert. Solen, Sp. 15.

Hab. China and Japan.

30 a

30 b

31 a

31 b

32

Sowerby del. et lith.

Vincent Brooks Day & Son Imp.

SOLECURTUS.

PLATE VII.

Species 30. (Fig. *a*, *b*, Mus. Brit.)

SOLECURTUS DOMBEI. *Sol. testâ elongatâ, subæquilaterali, fasciis purpureis latis radiatâ; latere antico oblongo, ad terminum truncato; latere postico paulò magis expanso, ad marginem ventralem inflato ad marginem terminalem rotundo; margine dorsali post umbones excavato, antè umbones recto; margine ventrali medio arcuatim excavato.*

DOMBEY'S SOLECURTUS. Shell elongated, subequilateral, rayed with broad purple bands; anterior side oblong, truncated at the end; posterior side a little more expanded, inflated at the ventral margin, rounded at the terminal margin; dorsal margin excavated behind the umboes, straight before the umboes; ventral margin excavated in an arch at the middle.

LAMARCK. Anim. sans Vert. Solen, Sp. 12.

Hab. S. America.

Among the numerous forms that have been referred to this species, the one now figured appears best to agree with the Lamarckean ideal.

Species 31. (Fig. *a*, *b*, Mus. Brit.)

SOLECURTUS NOVACULINA. *Sol. testâ oblongâ, trapezoideâ, rectâ, tenui, albidâ, medio planâ, ad latera concentricè rugatâ; latere anticò breviùsculo, latere postico elongato, ad terminum obliquè truncato; margine dorsali recto; margine ventrali vix concavo.*

THE RAZOR SOLECURTUS. Shell oblong, trapezoidal straight, thin, whitish, flat in the middle, concentrically wrinkled at the end; anterior side rather short; posterior side elongated, obliquely truncated at the end; dorsal margin straight; ventral margin scarcely concave.

BENSON. (Genus Novaculina.)

Hab. Near Calcutta.

Species 32. (Mus. Brit.)

SOLECURTUS COMPLANATUS. *Sol. testâ compressâ, tenui, albidâ, epidermide rugoso indutâ; latere antico, breviùsculo attenuato, ad terminum rotundato; margine dorsali subdeclivi; latere postico elongato, gradatim versus terminum expanso, ad terminum truncato; margine dorsali rectiùsculo; ligamento in marginem dorsalim impresso.*

THE FLATTENED SOLECURTUS. Shell compressed, thin, whitish, covered with a rough epidermis; anterior side rather short, attenuated, rounded at the end; dorsal margin sloped downwards a little; posterior side elongated and gradually expanded towards the end, truncated at the end; dorsal margin rather straight; ligament impressed into the dorsal margin.

SOWERBY.

Hab. ——?

This species partakes somewhat of the form of *Pharus legumen*.

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Sowerby del et lith.

Vincent Brooks Day & Son Imp.

SOLECURTUS.

PLATE VIII.

Species 33. (Mus. Brit.)

SOLECURTUS FRAGILIS. *Sol: testâ parvâ, albâ, pellucidâ, lævigatâ, subæquilaterali, medio-depressâ, propè umbones purpureo intùs radiatâ; margine dorsali utrinquè declivi; margine ventrali medio excavato; latere postico longiùsculo.*

THE FRAGILE SOLECURTUS. Shell small, white, pellucid, smooth, rather equilateral, depressed in the middle, rayed near the umboes, with purple inside; dorsal margin sloped at each side; ventral margin excavated in the middle; posterior side rather the longer.

DILWYN ——?

Hab. Nicobar Islands.

A single ray of purple near the umboes is seen through the pellucid shell.

Species 34. (Mus. Brit.)

SOLECURTUS NITIDISSIMUS. *Sol. testâ oblongâ, angustâ, compressâ, inæquilaterali, pallidè purpureo-radiatâ, anticè concentricè tenuiter rugatâ; latere antico elongato, ad terminum subrotundo; latere postico breviùsculo, supernè cuneato, ad terminum obliquè truncato.*

THE POLISHED SOLECURTUS. Shell oblong, narrow, compressed, inæquilateral, rayed with pale purple, anteriorly concentrically finely wrinkled; anterior side elongated, rather rounded at the end; posterior side rather short, wedge-shaped above, obliquely truncated at the end.

DORHN. Proc. Zool. Soc., 1861.

Hab. ——?

Species 35. (Mus. Sowerby.)

SOLECURTUS BIDENS. *Sol. testâ elongatâ, angustâ, epidermide lævigatâ, olivaceâ indutâ, intùs versùs marginem purpureâ, ad umbones purpureo uniradiatâ; latere postico longiùsculo, subtruncato; margine ventrali medio subcontracto.*

THE DOUBLE-TOOTHED SOLECURTUS. Shell elongated, narrow, covered with a smooth olive epidermis, purple within, towards the margin, with a single ray of purple at the umboes; posterior side rather long, somewhat truncated; ventral margin rather contracted in the middle.

CHEMNITZ. Conch., fig. 1939.

Hab. Nicobar Islands.

The differences between *S. bidens* and *S. fragilis* are those of form, the latter being proportionately narrow and oblong.

Species 36. (Mus. Brit.)

SOLECURTUS CALIFORNIANUS. *Sol. testâ elongatâ, angustâ, compressâ, medio pallidè fulvâ, utrinquè sordidè olivaceâ; umbonibus subcentralibus; latere postico obliquè angulato, radiatim striato, ad terminum truncato, latere antico ad terminum subrotundo; marginibus dorsali ventralique rectis.*

THE CALIFORNIAN SOLECURTUS. Shell elongated, narrow, compressed, pale fulvous in the middle, dull olive at each end; umboes nearly central; posterior side obliquely angular, radiately striated, truncated at the end, anterior side rounded at the end, dorsal and ventral margins straight.

CONRAD ——?

Hab. California.

Species 37. (Mus. Brit.)

SOLECURTUS ANGULATUS. *Sol. testâ oblongâ, subcylindricâ, rectâ, pallidè fulvâ, epidermide rugosâ indutâ; latere postico brevi, validè angulato, subobliquè truncato; latere antico elongato, concentricè tenuiter lirato, truncato; margine dorsali declivi, margine ventrali recto.*

THE ANGULAR SOLECURTUS. Shell oblong, subcylindrical, straight, fulvous, covered with a rough epidermis; posterior side short, with a very strong angle, rather obliquely truncated; anterior side elongated, concentrically finely ridged, truncated; dorsal margin sloped, ventral margin straight.

SOWERBY.

Hab. West Africa.

Much straighter and more cylindrical than *Solecurtus centralis* or *Caribæus*, with a more decided and gibbous posterior angle. At the same time it is broader, than *Sol. cylindrica*, and not so rigidly straight and angular.

Species 38. (Mus. Brit.)

SOLECURTUS PERUANUS. *Sol. testâ tenui, brevi, albidâ, inflatâ, utrinquè rugatâ, epidermide tenui, pallidè falvâ indutâ; latere postico brevi, margine dorsali excavato, margine terminali rotundatotruncato, margine ventrali validè sursum acclivi; medio subplanulato, umbonibus tumidis, margine ventrali vix contracto; latere antico valdè inflato, latiùsculo, margine terminali obtusè truncato, margine ventrali convexo.*

THE PERUVIAN SOLECURTUS. Shell thin, short, whitish, inflated, wrinkled at each end, covered with a thin, pale, fulvous epidermis; posterior side short, dorsal margin excavated, terminal margin roundly truncated, ventral margin strongly sloped upwards; middle rather flattened, umboes tumid, ventral margin contracted; anterior side much inflated, rather broad, terminal margin obtusely truncated, ventral margin convex.

DUNKER ——?

Hab. Tumbez, Peru.

Species 39. (Mus. Brit.)

SOLECURTUS SUBTERES. *Sol. testâ elongatâ, angustâ, medio planatâ, posticè concentricè rugatâ, purpureocarneâ, epidermide olivaceo-aureâ, lævigatâ indutâ; latere postico breviùsculo, ad terminum subobliquè truncato, margine dorsali subdeclivi; medio plano, margine ventrali recto; latere antico producto, ad terminum perpendiculariter truncato.*

THE STRAIGHTENED SOLECURTUS. Shell elongated, narrow, flattened in the middle, concentrically wrinkled, fleshy purple, covered with a golden olive smooth epidermis, posterior side rather the shorter, rather obliquely truncated at the end, dorsal margin rather sloped; middle flat, ventral margin straight; anterior side produced, perpendicularly truncated at the end.

CONRAD. J. A. N. S. Phil., 7, p. 233, t. 17, f. 10.

Hab. California.

SOLECURTUS.

	Plate.	Species.
abbreviatus, *Gould*	II.	6
acutidens, *Sowerby and Broderip*	V.	25
albus, *Martyn*	III.	16
angulatus, *Sowerby*	VIII.	37
antiquatus, *Pennant* (and fig. 19, Pl. IV.)	III.	13
Australis, *Dunker*	II.	10
bidens, *Chemnitz*	VIII.	35
Californianus, *Conrad*	VIII.	36
candidus, *Reineri*	III.	17
Caribæus, *Lamarck*	IV.	21
centralis, *Conrad*	IV.	18
coarctatus, *Linnæus*	II.	8
complanatus, *Sowerby*	VII.	32
constrictus, *Lamarck*	VI.	29
Coquimbensis *Sowerby*	V.	22
cylindricus, *Sowerby*	V.	23
Deshayesii, *Dunker*	II.	7
Dombei, *Lamarck*	VII.	30
Dombei, Reeve	VI.	28
exaratus, *Philippi*	I.	1
fragilis, *Dilwyn*	VIII.	33
Guineensis, Delwyn	IV.	21
inæqualis, *Sowerby*	VI.	28
Michaudi, Caillard	V.	25
minutus, *Dunker*	III.	11
mollis, *Gould*	VI.	26
nitidissimus, *Dohrn*	VIII.	34
novaculina, *Benson*	VII.	31
oblongus, *Dohrn*	I.	2
Peruanus, *Dunker*	VIII.	38
Philippinarum, *Dunker*	III.	12
Quoyi, *Deshayes*	II.	5
rufus, *Bosch*	VI.	27
Sanctæ Marthæ, *Dunker*	II.	9
Scheepmacheri, *Dunker*	III.	14
seminudus, *Sowerby*	IV.	20
solidus, *Gray*	I.	3
strigilatus, *Linnæus*	I.	4
subteres, *Conrad*	VIII.	39
sulcatus, *Dunker*	III.	15
viridens, *Chemnitz*	VIII.	35
violascens, *Deshayes*	V.	24

MONOGRAPH

OF THE GENUS

PETRICOLA.

"There's not a particle in sea or air
But Nature owns Thy plastic influence there."—*Montgomery.*

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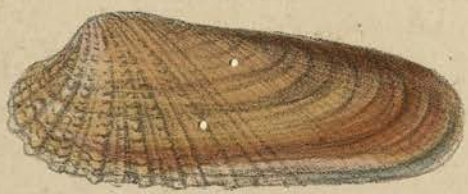

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Sowerby del et lith

Vincent Brooks Day & Son Imp.

PETRICOLA.

PLATE I.

Genus PETRICOLA, *Lamarck.*

Testa ovata, plerumque alba, æquivalvis, epidermide tenui induta, interdum radiatim costata; latere antico brevi, rotundo, latere postico producto, frequenter attenuato. Cardo utrâque valvâ bidentato; ligamentum breve, externum. Impressio pallii posticè sinuata.

Shell ovate, generally white, equivalve, covered with a thin epidermis, sometimes radiately ribbed; anterior side short, rounded, posterior side produced, frequently attenuated. Hinge with two teeth in each valve; ligament short, external. Palleal impression posteriorly sinuous.

Like the Venerupes, these are rock-inhabiting shells, the animals attaching themselves by means of a byssus within holes and crevices, to which the shells are often found to conform their shape, thus becoming irregular. Generally the Petricolæ are longer than the Venerupes, tapering towards the posterior, and in their sculpture the radiating predominate over the concentric ribs or striæ. Western America seems to present the more favourite resorts to these Mollusks, although the shores of the Pacific, the Mediterranean, and Red Seas possess some species. India and Australia are not without them. Besides seeking holes in rocks in which to reside they exercise the power of enlarging, if not entirely excavating new ones, hard stones and corals being sometimes pierced by them.

Species 1. (Mus. Brit.)

PETRICOLA SERRATA. *Pet. testâ pholadiformi, elongatâ, anticè brevissimâ, costis acutis, crebris radiatâ; posticè attenuatâ, striis acutis, elevatis obliquè radiatâ, ad terminum acuminatâ.*

THE SERRATED PETRICOLA. Shell pholas-shaped, elongated, anteriorly very short, rayed with sharp, close ribs; posteriorly attenuated, obliquely rayed with sharp, raised close striæ, acuminated at the end.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. New Zealand.

Differing chiefly from *Petricola serrata* in the comparative fineness of the sculpture.

Species 2. (Mus. Brit.)

PETRICOLA GRACILIS. *Pet. testâ pholadiformi, angustâ, elongatâ, anticè costis crenulatis, distantibus radiatâ; posticè gradatim attenuatâ, radiatim striatâ, ad terminum subacuminatâ.*

THE SLENDER PETRICOLA. Shell pholas-like, narrow, long, anteriorly rayed with crenulated, distant ribs; posteriorly gradually attenuated, radiately striated, rather acuminated at the end.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. —— ?

This shell was named by M. Deshayes from a specimen in Mr. Cuming's collection. Notwithstanding the variations to which shells of this genus are subject, the extreme attenuation and finer sculpture in this case may be considered sufficient to distinguish the species from *Petricola pholadiformis.*

Species 3. (Mus. Brit.)

PETRICOLA CONCINNA. *Pet. testâ oblongâ, subcylindricâ, anticè brevi, costis crenulatis, subdistantibus radiatâ; posticè productâ, concentricè laminatâ, inter laminas radiatim striatâ, ad terminum truncatâ, margine dorsali paulò declivi.*

THE NEAT PETRICOLA. Shell oblong, subcylindrical, short in front, rayed with crenulated, rather distant ribs; posteriorly produced, concentrically laminated, radiately striated between the laminæ, truncated at the end, with dorsal margin a little sloped.

SOWERBY. Proc. Zool. Soc., 1834, p. 46. Thesaurus Conchyliorum, f. 3.

Hab. Monte Christi.

The ribs at one end and the distinct and regular laminæ at the other give a peculiarly pretty appearance to this shell.

Species 4. (Mus. Brit.)

PETRICOLA DACTYLUS. *Pet. testâ oblongâ, valdè inflatâ, pholadiformi; anticè paulò hianti, acuminatâ, costis decumbentibus, serratis, subduplicatis usque ad medium ratiatâ; ad medium ventricosissimâ; posticè attenuatâ, radiatim striatâ, ad terminum truncatâ, margine dorsali declivi, ventrali acclivi.*

THE DATE PETRICOLA. Shell oblong, much inflated, pholas-shaped; anteriorly a little gaping, acuminated, rayed as far as the middle with decumbent, serrated ribs very ventricose at the middle; posteriorly attenuated, radiately striated, truncated at the end, dorsal margin sloped downwards, ventral sloped upwards.

SOWERBY. Genera of Shells, fig. 3.

Hab. South America.

Species 5. (Mus. Brit.)

PETRICOLA ELEGANS. *Pet. testâ oblongâ, anticè paulò hianti, acuminatâ, concentricè laminatâ, radiatim striatâ, ad medium inflatâ, posticè antè angulum depressâ, post angulum, laminis latioribus, extantibus, exfoliatâ, ad terminum truncatâ; margine dorsali antè umbones excavato, post umbones subdeclivi.*

THE ELEGANT PETRICOLA. Shell oblong, anteriorly a little gaping, acuminated, concentrically laminated, radiately striated, inflated in the middle, posteriorly depressed in front of the angle, exfoliated behind the angle with broader laminæ, truncated at the end; dorsal margin excavated before the umboes, somewhat sloped behind them.

DESHAYES (Venerupis). Proc. Zool. Soc., 1853.

Hab. —— ?

Named by M. Deshayes from a shell in the Cumingian collection.

Species 6. (Mus. Brit.)

PETRICOLA CULTELLUS. *Pet. testâ pholadiformi, oblongâ, anticè rotundâ, brevissimâ, costis serratis acutis, subdistantibus radiatâ; posticè elongatâ, attenuatâ, striis elevatis, crebris obliquè radiatâ, ad terminum acuminatâ.*

THE PRUNING-KNIFE PETRICOLA. Shell pholas-like, oblong, rounded anteriorly, very short, rayed with serrated, sharp, rather distant ribs; posteriorly elongated, attenuated, obliquely rayed with elevated, close striæ; acuminated at the end.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. Ceylon.

In *Petricola pholadiformis* the front ribs are strong, rather biangular and distant. In the present species they are sharp, have a single angle, and are less distant.

Species 7. (Mus. Sowerby.)

PETRICOLA PHOLADIFORMIS. *Pet. testâ oblongâ, subcylindricâ, anticè rotundâ, brevissimâ, costis validis, distantibus, subquadratis radiatâ, posticè elongatâ, attenuatâ costellis acutis, elevatis, crebris, obliquè radiatâ, ad terminum acuminatâ.*

THE PHOLAS-LIKE PETRICOLA. Shell oblong, subcylindrical, anteriorly rounded, very short, rayed with strong, distant, rather square ribs, elongated posteriorly, obliquely rayed with sharp, elevated, close riblets, attenuated at the end.

LAMARCK. Anim. s. Vert., Petricola, No. 11.

Hab. North America.

The external appearance of this well-known species is that of a Pholas; and it is only the absence of the subumbonal processes and accessory valves that distinguishes it, as far as the shell goes, from that family.

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11 a

11 b

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp

PETRICOLA.

PLATE II.

Species 8. (Fig. *a*, *b*, Mus. Brit.)

PETRICOLA NIVEA. *Pet. testâ oblongâ, inflatâ, pholadiformi, anticè brevi, rotundâ, radiatim striatâ; posticè elongatâ, subattenuatâ, perobliquè angulatâ, post angulum costis crebris, acutis, radiatâ, ad terminum angustè truncatâ, denticulatâ.*

THE SNOWY PETRICOLA. Shell oblong, inflated, pholas-shaped, anteriorly short, round, radiately striated; posteriorly elongated, slightly attenuated, very obliquely angular, rayed behind the angle with sharp, close ribs, narrowly truncated at the end, denticulated.

CHEMNITZ (Mytilus). Conch., vol. vii. Pl. LXXXII. f. 734.

Petricola rugosa, Sowerby.

Petricola fornicata, Say.

Petricola tenuis, Sowerby.

Petricola gibba, Middendorf?

Hab. Nicobar (Ch.), Chili and Peru (Cum.).

Species 9. (Fig. *a*, *b*, Mus. Sowerby.)

PETRICOLA DENTICULATA. *Pet. testâ pholadiformi, elongatâ, anticè hianti, acuminatâ, ad margines acclivi et declivi, costis depressis crenatis radiatâ; posticè radiatim striatâ, subacuminatâ; intùs ad terminos et propè marginem ventralem castaneâ.*

THE DENTICULATED PETRICOLA. Shell pholas-shaped, elongated, anteriorly gaping, acuminated, sloped upwards and downwards at the margins, rayed with depressed crenated ribs; posteriorly radiately striated, rather acuminated; chestnut within, at the ends and near the ventral margin.

SOWERBY. Proc. Zool. Soc., 1834.

Hab. Payti, Peru.

This species is even more pholas-like in form than *Petricola Pholadiformis*, having the anterior end acuminated.

(Species 10. Mus. Brit.)

PETRICOLA INCERTA. *Pet. testâ elongatâ, pholadiformi, anticè brevi, rotundâ, costis depressis crenulatis radiatâ; posticè subangulatâ, antè angulum depressâ, contractâ, post angulum costis numerosis, subacutis radiatâ, ad terminum subrotundâ.*

THE UNCERTAIN PETRICOLA. Shell elongated, pholas-shaped, anteriorly short, rounded in front, rayed with depressed ribs; posteriorly subangular, depressed, contracted in front of the angle, rayed behind the angle with numerous rather sharp ribs, somewhat rounded at the end.

SOWERBY.

Hab. ——?

I cannot identify the specimens of this shell in the British Museum with *Petricola niveus*. The latter seems to be characterized by sharp-edged ridges at the posterior end, while in the former the posterior ribs are more decumbent, and less distinct from the structure of other parts.

Species 11. (Fig. *a*, *b*, Mus. Sowerby.)

PETRICOLA LITHOPHAGA. *Pet. testâ brevi, subcuneiformi, radiatim striatâ, striis posterioribus majoribus; anticè inflatâ, rotundatâ, brevissimâ; posticè subattenuatâ, ad terminum plusminusve truncatâ.*

THE STONE-EATING PETRICOLA. Shell short, rather cuneiform, radiately striated, the posterior striæ the larger; anteriorly inflated, rounded, very short; posteriorly rather attenuated, more or less truncated at the end.

RETZIUS (Venus). Linnæan Transactions of Turin.

Pholas striata, Lamarck.

Myæ decussata, Turton.

Pholas costellata, Lamarck.

Pholas rocellaria, Lamarck.

Pholas ruperella, Blainville.
Hab. British shores.

The species is subject to great variations in form and sculpture, which have given rise to many needless synonyms.

Species 12. (Mus. Brit.)

PETRICOLA ELLIPTICA. *Pet. testâ oblongo-ellipticâ, subcompressâ, radiatim sulcatâ, concentricè distanter laminatâ; latere antico breviùsculo, rotundato; latere postico producto, ad terminum vix angulato; margine dorsali rectiùsculo.*

THE ELLPITICAL PETRICOLA. Shell oblong-elliptical, subcompressed, radiately grooved, concentrically distantly laminated; anterior side rather short, rounded; posterior side produced, scarcely angular at the end; dorsal margin rather straight.

SOWERBY. Proc. Zool. Soc., 1834.
Hab. Payti, Peru.

This rather Venus-like species is found in hard mud at low water.

Species 13. (Mus. Brit.)

PETRICOLA CHINENSIS. *Pet. testâ brevi, subcuneatâ, radiatim striatâ; anticè brevissimâ, rotundatâ, inflatâ, striis tenuibus radiatâ; posticè subattenuatâ, angulatâ, antè angulum depressâ, subcontractâ, post angulum costis elevatis acutis radiatâ, ad terminum truncatâ; margine dorsali declivi.*

THE CHINESE PETRICOLA. Shell short, subcuneate, radiately striated; anteriorly very short, rounded, inflated, rayed with thin striæ; posteriorly rather attenuated, angular, rayed with raised, sharp ribs, truncated at the end; dorsal margin sloped.

DESHAYES. Proc. Zool. Soc., 1853.
Hab. Chinese Seas.

Differing from *Petricola lithophaga* in having strong sharp ribs behind the posterior angle.

Species 14. (Mus. Brit.)

PETRICOLA BIPARTITA. *Pet. testâ breviùsculâ, subcuneatâ, anticè brevi, inflatâ, divaricatim striatâ; posticè subattenuatâ, angulatâ, post angulum costis validis serratis radiatâ, ad terminum truncatâ; umbonibus prominentibus, acutis; margine dorsali declivi.*

THE BIPARTITE PETRICOLA. Shell rather short, subcuneate, anteriorly short, inflated, divergently striated; posteriorly rather attenuated, angular, rayed behind the angle with strongly serrated ribs, truncated at the end; umboes prominent, sharp; dorsal margin sloped.

DESHAYES. Proc. Zool. Soc., 1853.
Hab. Island of Samar, Philippines.

Species 15. (Mus. Brit.)

PETRICOLA SOLIDA. *Pet. testâ subglobosâ, solidâ, inflatâ, propè umbones utrinquè violaceo-fuscâ, concentricè distanter laminatâ, radiatim serrato-costellatâ; latere antico brevi, rotundo; latere postico subacuminato.*

THE SOLID PETRICOLA. Shell rather globose, solid, inflated, violet-brown on each side of the umboes, concentrically distantly laminated, with radiating serrated small ribs; anterior side short, round; posterior side rather acuminated.

SOWERBY. Proc. Zool. Soc., 1834.
Hab. Peru.

Collected by the late Mr. Cuming in hard clay and stones at Lambezeque.

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20 *a*

20 *b*

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

PETRICOLA.

PLATE III.

Species 16. (Mus. Brit.)

PETRICOLA RUBIGINOSA. *Pet. testâ tenui, violaceo-rubescenti, subrhomboideâ, omnino divaricatim striatâ; latere antico breviùsculo, obliquè subtruncato; umbonibus prominentibus, margine dorsali subdeclivi; latere postico obliquè angulato, ad marginem ventralem acuminato.*

THE RUBY-COLOURED PETRICOLA. Shell thin, reddish-violet, rather rhomboidal, everywhere divergently striated; anterior side rather short, obliquely somewhat truncated; umboes prominent, dorsal margin a little sloped; posterior side obliquely angular, acuminated at the ventral margin.

ADAMS AND ANGAS (Narinia). Proc. Zool. Soc.

Hab. ——?

Species 17. (Mus. Hanley.)

PETRICOLA BICOLOR. *Pet. testâ ovatâ, tenui, radiatim minutè striatâ, utrinquè hianti, anticè rotundatâ, brevi; posticè obliquè subattenuatâ, maculâ trigonâ fuscâ post angulum pictâ.*

THE TWO-COLOURED PETRICOLA. Shell ovate, thin, radiately minutely striated, gaping at each end, anteriorly rounded, short; posteriorly a little attenuated, painted with a trigonal patch of brown.

SOWERBY. Thesaurus Conchyliorum, Petricola, f. 22.

Hab. ——?

Of the same form, and belong to the same group as *Petricola lithophaga*, but equally striated, and presenting a triangular patch of colour on one side, a very unusual thing in the genus.

Species 18. (Mus. ——? copied.)

PETRICOLA SEMILAMELLATA. *Pet. testâ parvâ, subcuneatâ, brevi; anticè concentricè tenuiter striatâ; posticè angulatâ, post angulum laminis prominentibus exfoliatâ; margine dorsali declivi; margine ventrali inflato.*

THE HALF-LAMINATED PETRICOLA. Shell small, rather cuneated, short; anteriorly concentrically finely striated; posteriorly angular, exfoliated behind the angle with prominent laminæ; dorsal margin sloped; ventral margin inflated.

LAMARCK. Anim. sans Vert. Petricola, No. 3.

Hab. Rochelle.

The laminæ on the hinder part will prevent this species being confounded with *Petricola lithophaga*, which it otherwise resembles.

Species 19. (Mus. Sowerby.)

PETRICOLA ÆQUISTRIATA. *Pet. testâ oblongâ, pholadiformi, striis radiantibus numerosis crenulatis, æqualibus, et striis concentricis crenulatis, minutè cancellatâ, posticè intùs extùsque maculâ fuscâ trigonâ pictâ; latere antico breviùsculo, rotundo; medio valdè inflato; latere postico subattenuato, obliquè subtruncato; margine dorsali excavato.*

THE EQUAL-STRIATED PETRICOLA. Shell oblong, pholas-shaped, minutely cancellated with numerous crenulated, equal, radiating striæ, painted posteriorly inside and out with a triangular patch of brown; anterior side rather short, rounded; middle much inflated; posterior side rather attenuated, obliquely subtruncated; dorsal margin excavated.

SOWERBY.

Hab. ——?

Differing from *Petricola denticulata* in the rounded anterior side and equal decussation.

Species 20. (Fig. *a*, *b*, Mus. Sowerby.)

PETRICOLA ROBUSTA. *Pet. testâ globoso-cuneatâ, extùs subcœruleâ, intùs fusco-nigriscenti; latere antico valdè inflato, rotundo, brevi, liris acutis numerosis radiato; latere postico attenuato, angustato, subangulato, antè angulum depresso, contracto, post angulum acutè et conspicuè costato, ad terminum truncato; umbonibus elevatis, margine dorsali valdè declivi.*

THE ROBUST PETRICOLA. Shell globose-cuneate, bluish without, blackish-brown within; anterior side much inflated, rounded, short, rayed with sharp numerous ridges; posterior side attenuated, narrow, rather angular, depressed and contracted in front of the angle, sharply and conspicuously ribbed behind the angle, truncated at the end; umboes raised, dorsal margin much sloped.

SOWERBY. Proc. Zool. Soc., 1834.

Hab. Panama.

Species 21. (Mus. Sowerby.)

PETRICOLA TYPICA. *Pet. testâ brevi, inflatâ, subglobosâ, cuneatâ, anticè rotundâ, ventricosâ, tenuiter radiatim striatâ; posticè subattenuatâ, versùs terminum costellis acutis radiatâ, ad terminum denticulatâ, truncatâ; margine dorsali antè umbones excavato, post umbones declivi.*

THE TYPICAL PETRICOLA. Shell short, inflated, subglobose, cuneate, anteriorly rounded, ventricose, finely radiately striated; posteriorly somewhat attenuated, towards the end rayed with conspicuous sharp riblets, denticulated, truncated at the end; dorsal margin excavated before the umboes, sloped behind them.

JONAS. Moll. Beitr., p. 2, pl. VII. f. 3.

Hab. Isl. St. Thomas.

Almost as globose in front as *Petricola robusta.* The ribs are finer, and increase gradually towards the end. The shell is much less cuneiform than *P. lithophaga.*

Species 22. (Mus. Sowerby.)

PETRICOLA DIVARICATA. *Pet. testâ solidâ, subtrapezoideâ, omnino divaricatim tenuiter striatâ; anticè brevissimâ, umbonibus terminalibus; posticè obliquè truncatâ; margine terminali incrassato, foliaceo.*

THE DIVERGENT PETRICOLA. Shell solid, rather trapezoidal, all over divergently finely striated; anteriorly very short, umboes terminal; posteriorly obliquely truncated; terminal margin thickened, foliated.

CHEMNITZ. Conch., pl. CLXXII. f. 1666–1667.

Narinio divaricata, Gray.

Hab. New Holland.

Species 23. (Mus. Brit.)

PETRICOLA VENTRICOSA. *Pet. testâ oblongâ, inflatâ; anticè subrotundâ, tenuiter decussatâ; posticè crenulatâ, sublamellatâ, subattenuatâ, ad terminum truncatâ, intùs fusco pictâ.*

THE VENTRICOSE PETRICOLA. Shell oblong, inflated; anteriorly somewhat rounded, finely decussated; posteriorly crenulated, rather laminated, a little attenuated, truncated at the end, painted brown within.

DESHAYES Proc. Zool. Soc.

Hab. Panama.

A much more ventricose shell than *Petricola denticulata,* not beaked in front, laminated at the end.

Species 24. (Mus. Sowerby.)

PETRICOLA LAPICIDA. *Pet. testâ solidiùsculâ, subtrapezoideâ, omnino divaricatim tenuiter striatâ; anticè brevi; umbonibus subterminalibus; posticè productâ, rotundatim angulatâ, post angulum costellis acutis, conspicuis, radiatâ; ad terminum truncatâ.*

THE STONE-DESTROYING PETRICOLA. Shell rather solid, rather trapezoidal, all over divergently finely striated; anteriorly short; umboes nearly terminal; posteriorly produced, roundly angular, rayed behind the angle with sharp, conspicuous small ribs; truncated at the end.

CHEMNITZ. Conch., pl. CLXXII. f. 1664–1665.

Narinio costata, Gray.

Hab. Australia. Mauritius.

Differing from *Petricola divaricata* in having strong sharp ribs at the posterior end.

PETRICOLA.

	Plate.	Species.
æquistriata, *Sowerby*	III.	19
bicolor, *Sowerby*	III.	17
bipartita, *Sowerby*	II.	14
Chinensis, *Deshayes*	II.	13
concinna, *Sowerby*	I.	3
costata, Gray	III.	24
costellata, Lamarck	II.	11
cultellus, *Deshayes*	I.	6
dactylus, *Sowerby*	I.	4
decussata, Turton	II.	11
denticulata, *Sowerby*	II.	9
divaricata, *Gray*	III.	22
elegans, *Deshayes*	I.	5
elliptica, *Sowerby*	II.	12
fornicata, Say	II.	8
gibba, Middendorf	II.	8
gracilis, *Deshayes*	I.	2
incerta, *Sowerby*	II.	10
lapicida, *Chemnitz*	III.	24
lithophaga, *Retzius*	II.	11
nivea, *Chemnitz*	II.	8
pholadiformis, *Lamarck*	I.	7
robusta, *Sowerby*	III.	20
rocellaria, Lamarck	II.	11
rubiginosa, *Adams and Angas*	III.	16
rugosa, Sowerby	II.	8
ruperella, Blainville	II.	11
semilamellata, *Lamarck*	III.	18
serrata, *Deshayes*	I.	1
solida, *Sowerby*	II.	15
tenuis, Sowerby	II.	8
striata, Lamarck	II.	11
typica, *Jonas*	III.	21
ventricosa, *Deshayes*	III.	23

MONOGRAPH

OF THE GENUS

ASTARTE.

. . . . "And thou, majestic main,
A secret world of wonders in thyself,
Sound His stupendous praise."—*Thompson.*

1a

2a

2b

3a

4

5

3b

6

1b

7

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

ASTARTE.

PLATE I.

Genus ASTARTE, *J. Sowerby.*

Testa æquivalvis, inæquilateralis, subovata, vel orbicularis, vel subtrigona, plerumque subcompressa; concentricè rugata, epidermide crassa induta, clausa. Impressiones musculares duæ, magnæ, subreniformes. Impressio pallii integra. Cardo utrâque valvâ tridentatâ. Ligamentum externum, area dorsali et lunulâ excavatis.

Shell equivalve, inequilateral, subovate, or orbicular, or subtrigonal, generally subcompressed; concentrically wrinkled, covered with a thick epidermis, closed. Muscular impressions two, large, rather kidney-shaped. Impression of the mantle entire. Hinge tridentate in each valve. Ligament external, with dorsal area and lunule excavated.

Syn. Crassina, *Lamarck.* Tridenta, *Schum.*

The shells of this genus are not liable to be confounded with those of any other, the several characters included in the description being pretty constant in all. The minute *Astarte trigonularis* is the only exception, and is very abnormal in form. The concentric wrinkles have in most species a tendency to become less prominent towards the centre, and even to disappear altogether towards the margin of the shell. All the species, excepting the Mediterranean *A. fusca*, inhabit northern seas; Norway, Greenland, North America, &c., being the chief places in whose sandy shores they burrow.

Species 1. (Fig. *a*, *b*, Mus. Sowerby.)

ASTARTE CASTANEA. *Ast. testâ suborbiculari, altâ, obsoletè radiatim sulcatâ; rugis concentricis distantibus, vix prominentibus; versùs marginem subevanidis, latere antico brevissimo; umbonibus prominentibus; margine dorsali utrinquè valdè declivi.*

THE CHESTNUT ASTARTE. Shell suborbicular, elevated, obsoletely radiately grooved; concentric wrinkles distant, scarcely prominent, partly disappearing towards the margin, anterior side very short; umboes prominent; dorsal margin much sloped on each side.

SAY. American Journal of Science, 1830, Conch. Pl. I.

Astarte crassidens, Brod. and Sowb. ?

Hab. Arctic Seas.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

ASTARTE COMPRESSA. *Ast. testâ parvâ, suborbiculari, compressâ, plusminusve elevatâ; rugis concentriciis parvis; umbonibus prominentibus, marginibus dorsalibus valdè declivis; latere antico brevissimo; latere postico vix truncato.*

THE COMPRESSED ASTARTE. Shell small, suborbicular, compressed, more or less elevated; concentric wrinkles small; umboes prominent, dorsal margins much sloped; anterior side very short; posterior side scarcely truncated.

MONTAGU (Venus). Testacea Britannica, Sup., p. 43.

Venus Montagui, Dillwyn.

Astarte striata, Gray.

Astarte multicostata, Macgillivray.

Hab. Great Britain and Norway.

The varieties differ in form and elevation, and some specimens are more compressed than others.

Species 3. (Fig. *a*, *b*, Mus. Sowerby.)

ASTARTE SULCATA. *Ast. testâ subquadratâ vel orbiculari-subtrigonâ; sulcis concentricis profundis, regularibus; latere antico brevi; latere postico subangulato, truncato; margine dorsali rectiùsculo vel subrotundatim declivi; margine interno interdum denticulato.*

THE GROOVED ASTARTE. Shell subquadrate or orbicularly subtrigonal; concentric ridges deep, regular; anterior side short; posterior side somewhat angular, truncated; dorsal margin rather straight, or somewhat roundly sloped; inner margin sometimes denticulated.

COSTA (Pectunculus). Brit. Conch., p. 192.
Crassina Danmoniensis, Lamarck.
Crassina Scotica, Turton.
Venus crassatella, Blainville.
Hab. Northern British Seas.

The normal form of this species is angular and truncated, but in some varieties this peculiarity is lost, and the dorsal line is sloped. The variety named *Scotica* sometimes occurs smooth on the inner edge.

Species 4. (Mus. Brit.)

ASTARTE ELLIPTICA. *Ast. testâ compressâ, oblongo-ovatâ; latere postico producto, ad terminum subtruncato; sulcis concentricis medio et infrà obsoletis; umbonibus acuminatis; margine postico-dorsali leviter declivi.*

THE ELLIPTIC ASTARTE. Shell compressed, oblong-ovate; posterior side produced, rather truncated posteriorly; concentric grooves obsolete in the middle and under; umboes acuminated; posterior dorsal margin gently sloped.

BROWN. Illus. Conch., p. 96, Pl. XXXVIII. f. 3.
Astarte semisulcata, Muller, not Leach.
Crassina sulcata, Nilson.
Crassina ovata, Brown.
Hab. Northern Europe.

Species 5. (Mus. Brit.)

ASTARTE SUBÆQUILATERA. *Ast. testâ ovatâ, compressâ; latere antico paulò breviori, declivi; umbonibus obtusis, haud prominentibus; latere postico subangulato, ad terminum subtruncato; margine ventrali convexo; rugis concentricis crebris, ad latera subevanidis.*

THE SUBEQUILATERAL ASTARTE. Shell ovate, compressed; anterior side a little shorter, sloped; umboes obtuse, not prominent; posterior side rather angular, rather truncated at the end; ventral margin convex; concentric wrinkles crowded, somewhat evanescent at the sides.

SOWERBY. Thesaurus Conchyliorum, Astarte, No. 6.
Hab. Newfoundland.

The umboes in this species are obtuse, and more nearly central than in most others.

Species 6. (Mus. Sowerby.)

ASTARTE ABBREVIATA. *Ast. testâ parvâ, crassissimâ, suborbiculari, altâ, brevi, crebrè et æqualiter sulcatâ; latere antico brevissimo, valdè declivi; latere postico subquadrato; umbonibus elevatis, rotundis, margine dorsali declivi, margine interno lævi.*

THE ABBREVIATED ASTARTE. Shell small, very thick, suborbicular, elevated, short, finely and equally grooved; anterior side very short, much sloped; posterior side subquadrate; umboes elevated, rounded, dorsal margin sloped, inner margin smooth.

SOWERBY.
Hab. ——?

Species 7. (Mus. Brit.)

ASTARTE BANKSII. *Ast. testâ tumidâ, suborbiculatâ, altâ; creberrimè sulcatâ; umbonibus elevatis; latere antico propè umbones excavato, versùs marginem ventralem producto, rotundato; latere postico antè angulum vix conspicuum posticum subdepresso; margine dorsali convexo declivi.*

BANKS'S ASTARTE. Shell tumid, suborbicular, elevated; very closely grooved; umboes raised; anterior side excavated near the umboes, produced towards the ventral margin, rounded; posterior side a little depressed in front of a scarcely perceptible posterior angle; dorsal margin convexly sloped.

LEACH. Ross's Voyage, Appendix.
Astarte pulchella, Jonas.
Hab. Greenland.

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9 *a*

9 *b*

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ASTARTE.

PLATE II.

Species 8. (Mus. Brit.)

ASTARTE QUADRANS. *Ast. testâ quadrato-subtrigonâ, compressâ, altâ, subæquilaterali, tenuiùsculâ, tenuiter striatâ; latere antico breviori; latere postico obliquè declivi, ad terminum subtruncato; margine interno lævigato.*

THE QUADRATE ASTARTE. Shell rather square, subtrigonal, compressed, elevated, rather equilateral, rather thin, finely striated; anterior side rather the shorter; posterior side obliquely sloped, somewhat truncated at the end; inner margin smooth.

GOULD. Invertebrata of Massachusetts, p. 81, f. 48.

Hab. North America.

Species 9. (Fig. *a*, *b*, Mus. Brit.)

ASTARTE CRENATA. *Ast. testâ ovatâ, inflatâ, tenuiùsculâ, anticè usque ad medium concentricè tenuiter liratâ, posticè lævigatâ; epidermide tenui, flavidâ; cardine angusto; margine ventrali intùs crenato.*

THE CRENATED ASTARTE. Shell ovate, inflated, rather thin anteriorly, as far as the middle concentrically finely ridged, posteriorly smooth; epidermis thin, yellowish; hinge narrow; ventral margin crenated within.

GRAY. Brit. Mus.

Astarte oblonga, Sowerby.

Hab. ——?

On careful examination I am able to identify the shell I called *Astarte oblonga*, with the specimens of Dr. Gray's *A. crenata*. The latter are younger shells.

Species 10. (Mus. Brit.)

ASTARTE CREBRICOSTATA. *Ast. testâ ovato-subtrigonâ, compressâ; costis concentricis numerosis, crebris, post angulum posticum evanidis; latere antico rotundo, breviùsculo; latere postico producto, angulato, post angulum lævigato, planato; margine dorsali obliquè declivi, ad terminum truncatâ.*

THE CLOSE-RIBBED ASTARTE. Shell ovate-subtrigonal, compressed; concentric ribs numerous, crowded, disappearing behind the posterior angle; anterior side rounded, rather short; posterior side produced, angular, smooth and flat behind the angle; dorsal margin obliquely sloped, truncated at the end.

FORBES. Ann. Nat. Hist., vol. xix. p. 98.

Hab. North Britain.

The early figures of this shell were taken from one or two dead specimens deprived of their epidermis. There are now fresh specimens in the British Museum.

Species 11. (Mus. Brit.)

ASTARTE UNDATA. *Ast. testâ ovato-subtrigonâ, altâ; rugis concentricis magnis, distantibus, post angulum posticum subobsoletis; umbonibus acuminatis; latere antico brevi; latere postico obliquè producto; margine interno crenulato.*

THE WAVED ASTARTE. Shell ovate-subtrigonal, elevated; concentric wrinkles large, distant, rather obsolete behind the posterior angle; umboes acuminated, anterior side short; posterior side obliquely produced; inner margin crenulated.

GOULD. Invertebrata of Massachusetts.

Astarte latisulca, Hanley.

Hab. North America.

Normally a more trigonal or sloping shell than *Astarte sulcata*, with the ribs far more strong and distant.

Species 12. (Mus. Hanley.)

ASTARTE SEMISULCATA. *Ast. testâ oblongâ, subcompressâ, versùs umbones tenuiter rugatâ; latere antico breviùsculo, margine dorsali propè umbones excavato; latere postico producto, ad terminum truncato, margine dorsali rectiùsculo.*

THE HALF-GROOVED ASTARTE. Shell oblong, subcom-

pressed, finely wrinkled towards the umboes; anterior side rather short, with dorsal margin excavated near the umboes; posterior side produced, truncated at the end, with dorsal margin rather straight.

LEACH (Crassina). Ann. Phil. 14, fig. 204.

Hab. North Seas.

Species 13. (Mus. Brit.)

ASTARTE INTERMEDIA. *Ast. testâ ovato-subtrigonâ, utrinquè subacuminatâ; rugis numerosis, rotundis, propè marginem posticum subevanidis; umbonibus elevatis, margine dorsali utrinquè declivibus; margine interno lævi.*

THE INTERMEDIATE ASTARTE. Shell ovate-subtrigonal, rather acuminated at each end; wrinkles numerous, rounded, partly disappearing near the posterior margin; umboes elevated, dorsal margin sloped at each side; inner edge smooth.

SOWERBY. Thesaurus Conchyliorum, Astarte, Sp. 3.

Hab. North Europe.

Resembling *Astarte undata* in form, but more pointed, and having many more ribs than *A. sulcata*; almost as many as *Astarte crebricostata.*

Species 14. (Mus. Brit.)

ASTARTE MORTONI. *Ast. testâ ovato-suborbiculari, compressâ; rugis concentricis distantibus, validis, versùs margines utrinquè discontinuis; interstitiis latis, profundè excavatis; umbonibus obtusis; latere antico brevi, rotundo; latere postico producto, obscurè truncato; margine ventrali rotundatim convexo; margine interno lævigata.*

MORTON'S ASTARTE. Shell ovate-suborbicular, compressed; concentric wrinkles distant, strong, discontinued near the margin on each side; interstices broad, deeply excavated; umboes obtuse; anterior side short, rounded; posterior side produced, obscurely truncated; ventral margin roundly convex; inner margin smooth.

ADAMS ——?

Astarte undata, var.? Sowerby in Thesaurus.

Hab. North America.

My only authority for this species is a specimen named as above in the Cumingian collection; not the undeveloped shell quoted in the Thesaurus, but a mature shell of rounded form and dark black epidermis.

Species 15. (Mus. Sowerby.)

ASTARTE SEMILIRATA. *Ast. testâ ovato-subtrigonâ, elevatâ, medio obliquè tumidâ; latere antico obliquè producto, infrà umbones excavato; umbonibus retrorsis, prominentibus, acuminatis; latere postico declivi, obscurissimè truncato, margine ventrali acclivi; rugis concentricis versùs umbones numerosis, concinnis, acutis, medio et infrà evanidis.*

THE HALF-RIDGED ASTARTE. Shell ovate-subtrigonal, elevated, obliquely tumid in the middle; anterior side obliquely produced, excavated under the umboes; umboes leaning backwards, prominent, acuminated; posterior side sloped, very obscurely truncated, ventral margin sloped upwards; concentric ridges near the umboes numerous, neat, sharp, becoming obscure at the middle and below.

SOWERBY.

Hab. Northern Seas.

Species 16. (Mus. Brit.)

ASTARTE TRIANGULARIS. *Ast. testâ parvâ, altâ, obliquè trigonâ, tumidâ, politâ; umbonibus prominentibus, ferè terminalibus; latere antico ferè perpendiculari; latere postico declivi, ad marginem ventralem producto; margine interno crenulato.*

THE TRIANGULAR ASTARTE. Shell small, elevated, obliquely trigonal, tumid, polished; umboes prominent, nearly terminal; anterior side almost perpendicular; posterior side sloped, produced at the ventral margin; inner margin crenulated.

MONTAGU (Mactra). Test. Brit., p. 99, pl. 3, f. 5.

Goodallia triangularis, Turt.

Hab. North Britain.

17a

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21a

21b

17b

Sowerby del et lith

Vincent Brooks Day & Son Imp

ASTARTE.

PLATE III.

Species 17. (Fig. *a*, *b*, Mus. Brit.)

ASTARTE FUSCA. *Ast. testâ suborbiculari, crassâ, castaneâ, rubro obscurè radiatâ, propè umbones concentricè, crebrè et concinnè liratâ; umbonibus subterminalibus; latere antico brevissimo; margine ventrali rotundato, margine postico-terminali subtruncato.*

THE BROWN ASTARTE. Shell rather orbicular, thick, chestnut, obscurely rayed with red, concentrically, closely, and neatly ridged near the umboes; umboes nearly terminal; anterior side very short; ventral margin rounded, posterior terminal margin slightly truncated.

POLI (Tellina). Test. Sic. Tab. 15, f. 22, 23.

Hab. Mediterranean.

Species 18. (Mus. Brit.)

ASTARTE LACTEA. *Ast. testâ magnâ, compressâ, ovato-subtrigonâ, epidermide crasso, nigro indutâ, propè umbones tenuiter concentricè liratâ, intùs lacteâ; latere antico brevi, declivi; latere postico obliquè producto; margine dorsali declivi, ad terminum subtruncato; margine interno lævigato.*

THE MILK-WHITE ASTARTE. Shell large, compressed, ovate, subtrigonal, covered with a thick black epidermis, finely concentrically ridged near the umboes, milk-white within; anterior side short, sloped; posterior side obliquely produced, dorsal margin sloped, somewhat truncated at the end; inner margin smooth.

BRODERIP. Zoological Journal, vol. iv. p. 356.

Hab. North Europe.

The wrinkles, although fine and distinct near the umboes, are continued a very little way from them in most specimens.

Species 19. (Mus. Brit.)

ASTARTE PRODUCTA. *Ast. testâ oblongo-ovatâ, compressâ, ad umbones, et ferè ad medium tenuiter et regulariter liratâ, versùs marginem lævigatâ; latere antico paulò producto; latere postico elongato, ad terminum subacuminato; margine dorsali leviter declivi; margine interno lævigato.*

THE PRODUCED ASTARTE. Shell oblong-ovate, compressed, finely and regularly ridged at the umboes and nearly as far as the middle, smooth towards the margin; anterior side a little produced; posterior side elongated, rather acuminated at the end; dorsal margin slightly sloped; inner margin smooth.

SOWERBY.

Hab. North Europe.

The difference between this species and *Astarte lactea* is the same as that which causes *Ast. elliptica* to be separated from *Ast. sulcata*, namely, a prolongation in form.

Species 20. (Mus. Brit.)

ASTARTE SUBTRIGONA. *Ast. testâ crassâ, subtrigonâ, epidermide castaneo indutâ, intùs ad marginem lævi, versùs umbones et ad medium subirregulariter liratâ, medio ad marginem lævi; latere antico tumido, subrotundo; latere postico angulato, antè angulum compresso; margine dorsali valdè declivi.*

THE SUBTRIGONAL ASTARTE. Shell thick, subtrigonal, covered with a chestnut epidermis, smooth at the margin within, rather irregularly ridged towards umboes and to the middle, from the middle to the margin smooth; anterior side tumid, rather

round; posterior side angular, compressed in front of the angle, dorsal margin much sloped.

SOWERBY.

Hab. Northern Seas.

This shell is so decidedly different in form from the normal specimens of *Astarte arctica*, that it seems desirable to separate it.

Species 21. (Fig. *a*, *b*, Mus. Brit.)

ASTARTE ARCTICA. *Ast. testâ elliptico-suborbiculari, subcompressâ, propè umbones medioque subirregulariter liratâ, versùs marginem lævigatâ; latere antico brevissimo; latere postico obscurè angulato, truncato; margine dorsali declivi; margine ventrali rotundo, intùs lævigato.*

THE ARCTIC ASTARTE. Shell elliptical-suborbicular, subcompressed, rather irregularly ridged near the umboes and at the middle, smooth towards the margin; anterior side very short; posterior side obscurely angular, truncated; dorsal margin sloped; ventral margin rounded, smooth within.

GRAY (Crassina). App. Capt. Parry's Voyage.

Venus borealis, Chemnitz.

Astarte cyprinoides, Duval.

Crassina corrugata, Brown.

Astarte Japonica, Jay?

Hab. Northern Seas.

ASTARTE.

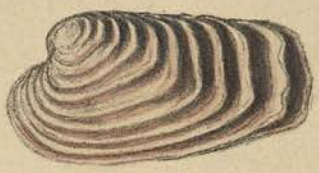
	Plate.	Species.
abbreviata, *Sowerby*	I.	6
Arctica, *Gray*	III.	21
Banksii, *Leach*	I.	7
borealis, Chemnitz	III.	21
castanea, *Say*	I.	1
compressa, *Montagu*	I.	2
corrugata, Brown	III.	21
crassidens, Brod. and Sowb.	I.	1
crassatella, Blainville	I.	3
crebricostata, *Forbes*	II.	10
crenata, *Gray*	II.	9
cyprinoides, Duval	III.	21
Danmoniensis, Lamarck	I.	3
elliptica, *Brown*	I.	4
fusca, *Poli*	III.	17
intermedia, *Sowerby*	II.	13
Japonica, Jay?	III.	21
lactea, *Broderip*	III.	18
latiuscula, Hanley	II.	11
Montagui, Dillwyn	I.	2
Mortoni, *Adams*	II.	14
multicostata, Macgillivray	I.	2
oblonga, Sowerby	II.	9
ovata, Brown	I.	4
producta, *Sowerby*	III.	19
pulchella, Jonas	I.	7
quadrans, *Gould*	II.	8
Scotica, Turton	I.	3
semilirata, *Sowerby*	II.	15
semisulcata, *Leach*	II.	12
semisulcata, Müller	I.	4
striata, Gray	I.	2
subæquilatera, *Sowerby*	I.	5
subtrigona, *Sowerby*	III.	20
sulcata, Nilson	I.	4
sulcata, *Costa*	I.	3
triangularis, *Montagu*	II.	16
undata, *Gould*	II.	11

MONOGRAPH

OF THE GENUS

VENERUPIS.

"Ocean exhibits fathomless and broad,
Much of the pow'r and majesty of God."—*Cowper.*



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2a

2b

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4a

4b

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Sowerby del et lith

Vincent Brooks Day & Son, Imp

VENERUPIS.

PLATE I.

Genus, VENERUPIS, *Lamarck.*

Testa valde irregularis, inæquilateralis, æquivalvis, oblonga, plerumque concentricè laminata, radiatim striata, anticè paulò hians. Impressiones musculares duæ, magnæ, reniformes. Impressio pallii posticè latè et profundè sinuata. Cardo in valvâ dextrâ tridentatâ, in valvâ sinistrâ bidentatâ. Ligamentum externum.

Shell very irregular, inequilateral, equivalve, oblong, generally concentrically laminated, radiately striated, anteriorly a little gaping. Muscular impressions two, large, kidney-shaped. Palleal impression posteriorly and deeply sinuous. Hinge tridentate in right valve, and bidentate in the left. Ligament external.

Syn. IRUS, Oken. RUPELLARIA, Fl. de Bellevue.

The shells of this genus are found in holes and crevices of rocks, where they are fixed by a byssus passing between the gaping valves. It is rather difficult to distinguish some of the species from the more irregular rock-inhabiting Tapes on the one hand, and the more Tapes-like Petricolæ on the other. The concentric laminæ, however, are the more prominent in this genus; whereas the reverse is the case in the Petricolæ, and the posterior side is generally truncated, and does not tend to end in a point. The Venerupes are more numerous in northern and temperate climates; many species are European, being found in Scandinavia and the British Islands. There are, however, some species in Australia, and some in the Philippines.

Species 1. (Mus. Brit.)

VENERUPIS CORDIERI. *Ven. testâ oblongâ, inflatâ, subcylindricâ, laminis concentricis crassis, posticè latioribus, inflexis exfoliatâ; latere antico brevi, declivi, infrà subacuminato; umbonibus acuminatis, subterminalibus; latere postico elongato, obliquè angulato; margine dorsali rectiùsculo, margine terminali perpendiculari.*

CORDIER'S VENERUPIS. Shell oblong, inflated, rather cylindrical, exfoliated with concentric, thick laminæ, wider and inflected posteriorly; anterior side short, sloped, a little acuminated below; posterior side elongated, obliquely angular; dorsal margin rather straight, terminal margin perpendicular.

DESHAYES. Revue Zoologique, 1839.

Hab. California.

Species 2. (Fig. *a*, *b*, Mus. Brit.)

VENERUPIS INSIGNIS. *Ven. testâ inflatâ, irregulari radiatim striatâ, aurantiâ, cæruleo purpureoque nebulatâ, intùs rubro-violaceâ; latere antico brevissimo; umbonibus ferè terminalibus; latere postico producto, obliquè tumido, margine terminali supernè declivi.*

THE WONDERFUL VENERUPIS. Shell inflated, irregular radiately striated, orange, clouded with blue and purple, red-violet within; anterior side very short; umboes nearly terminal; posterior side produced, obliquely tumid, terminal margin sloped above.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. New Zealand.

Of very rich colour and very irregular growth.

Species 3. (Mus. Brit.)

VENERUPIS CRENATA. *Ven. testâ oblongo-suoquaarata, posticè obliquè angulatâ, aurantio purpureoque nebulatâ, radiatim striatâ, concentricè laminis extantibus, crenulatis, posticè latioribus exfoliatâ; latere antico brevi, umbonibus tumidis, subterminalibus; latere postico elongato, margine rectangulari.*

THE CRENATED VENERUPIS. Shell oblong-subquadrate, posteriorly obliquely angular, clouded with orange and purple; radiately striated, concentrically exfoliated, with outstanding crenulated laminæ, broader posteriorly; anterior side short, umboes tumid, nearly terminal; posterior side elongated, with rectangular margin.

LAMARCK. Anim. sans Vert.

Hab. New Holland.

A beautiful shell, highly characteristic of the genus.

Species 4. (Mus. Brit.)

VENERUPIS MIRABILIS. *Ven. testâ oblongo-subquadratâ, valdè inflatâ, omnino striis angulatim divaricatis minutissimè sculptâ; latere antico brevi, rotundo; umbonibus inflatis; latere postico producto, obtusè angulato.*

THE ADMIRABLE VENERUPIS. Shell oblong-subquadrate, much inflated, very minutely sculptured in every part with angularly diverging striæ; anterior side short, rounded; umboes inflated; posterior side produced, obtusely angular.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. Monterey, California.

The curious zigzag structure of the surface is similar to that of *Venerupis texta*, but it is very much more minute.

Species 5. (Mus. Sowerby.)

VENERUPIS CARDITOIDES. *Ven. testâ pallidâ, oblongâ, concentricè laminis extantibus, subcrenatis, distantibus, posticè latioribus exfoliatâ, sulcis subdistantibus, inequalibus, angulatis radiatâ; latere antico brevi, umbonibus depressis; latere postico oblongo, cuneato, obliquè angulato, margine terminali subobliquè truncato.*

THE CARDITA-LIKE VENERUPIS. Shell pale, oblong, concentrically exfoliated with outstanding slightly crenated distant laminæ, wider posteriorly, rayed with rather distant unequal, angular sulci; anterior side short, umboes depressed; posterior side oblong, cornered, obliquely angular, terminal margin rather obliquely truncated.

LAMARCK. Anim. sans Vert.

Hab. New Holland.

The distance of the ribs or sulci from each other varies in different specimens and in different parts of the same shell, but there are generally a few broader ones a little in front of the posterior oblique angle.

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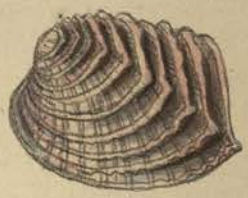
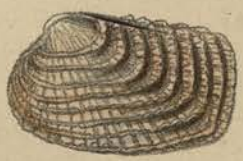


10 *b*



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12 *a*

12 *b*

12 *c*

Sowerby del et lith.

Vincent Brooks Day & Son Imp.

VENERUPIS.

PLATE II.

Species 6. (Mus. Brit.)

VENERUPIS DIGONA. *Ven. testâ parvâ, tenui, pallidâ, anticè tenuiter, posticè latè laminatâ, laminis posticè biangulatis, ad angulos subspiniferis, inter angulos inflectis; latere antico brevissimo, angusto; latere postico obliquè angulato, lato, margine dorso-terminali rectangulari.*

THE TWO-SIDED VENERUPIS. Shell small, thin, pale, anteriorly thinly, posteriorly widely laminated, laminæ posteriorly biangular, rather spinose at the angles, bent inwards between the angles; anterior side very short, narrow; posterior side obliquely angular, broad, dorso-terminal margin rectangular.

DESHAYES ——?

Hab. ——?

Species 7. (Mus. Sowerby.)

VENERUPIS ATTENUATA. *Ven. testâ elongatâ, cylindricâ, radiatim minutè striatâ; intùs luteâ, propè marginem terminalem purpureo nebulatâ; latere antico brevissimo, umbonibus ferè terminalibus; latere postico elongato, obliquè angulato, antè angulum subcontracto; post angulum irregulariter laminato, ad terminum truncato.*

THE ATTENUATED VENERUPIS. Shell elongated, cylindrical, radiately minutely striated; yellowish within, clouded with purple near the terminal margin; anterior side very short, umboes nearly terminal; posterior side elongated, obliquely angular, a little contracted in front of the angle; irregularly laminated behind the angle, truncated at the end.

SOWERBY.

Hab. ——?

A curious little cylindrical species.

Species 8. (Mus. Brit.)

VENERUPIS DERELICTA. *Ven. testâ elongatâ, radiatim striatâ, concentricè laminis crenulatâ, posticè productioribus exfoliatâ; latere postico lato, obliquè subquadrato; latere antico acuminatim producto; margine ventrali contracto.*

THE NEGLECTED VENERUPIS. Shell elongated, radiately striated, concentrically exfoliated with crenulated laminæ, more produced posteriorly; posterior side broad, obliquely subquadrate; anterior side acuminately produced; ventral margin contracted.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. Philippines.

Species 9. (Mus. Brit.)

VENERUPIS TEXTA. *Ven. testâ oblongo-subquadratâ, tenui, inflatâ, pallidâ, striis rugosis angulatim divaricatis omnino sculptâ; latere antico breviùsculo, rotundo; medio planulato, lato; latere postico producto, obscurissimè angulato; margine dorsali vix declivi; margine ventrali rectiùsculo.*

THE TEXTURED VENERUPIS. Shell oblong-subquadrate, thin, inflated, pale, sculptured all over with rough, angularly divergent striæ; anterior side rather short, rounded; middle flattened, broad; posterior side produced, very obscurely angular, dorsal margin scarcely sloped; ventral margin rather straight.

DESHAYES —— ? MS. Mus. Brit.

Hab. N.E. Australia.

Lighter but coarser in texture than *Venerupis mirabilis*.

Species 10. (Fig. *a*, *b*, Mus. Brit.)

VENERUPIS FOLIACEA. *Ven. testâ ovato-suborbiculari, compressiùsculâ, sulcis duplicatis subdistantibus radiatâ, laminis distantibus, crenulatis extantibus, tenuibus, latis posticè angulum formantibus exfo-*

liatâ intùs flavidâ propè marginem rubro-violaceâ; latere antico brevissimo, umbonibus depressis; latere postico angulatim expanso, margine dorsali elevato, subarcuato, margine terminali latè truncato; margine ventrali convexo, intùs crenato.

The leafy Venerupis. Shell ovate-suborbicular, rather compressed, rayed with duplicate, rather distant grooves; exfoliated with distant, crenulated, outstanding thin broad laminæ forming an angle, posteriorly, yellowish within, reddish-violet near the margins; anterior side very short; umboes depressed; posterior side angularly expanded; dorsal margin raised, a little arched, terminal margin broadly truncated; ventral margin convex; crenated within.

Deshayes. Proc. Zool. Soc., 1853.

Hab. Mazatlan.

It may be a question whether this beautifully ornamental shell should not have been included in the genus Venus.

Species 11. (Mus. Hanley.)

Venerupis exotica. *Ven. testâ oblongâ, subrectangulâ, albidâ, lineis rubris posticè pictâ; radiatim distanter, acutè sulcatâ; laminis crenatis, subdistantibus, extantibus, posticè latioribus, angulatis, exfoliatâ; latere antico breviùsculo; latere postico oblongo, margine terminali recto.*

The exotic Venerupis. Shell oblong, rather rectangular, whitish, painted with red lines posteriorly; radiately, distinctly, sharply grooved; exfoliated with rather distant, outstanding crenated laminæ, wider and angular posteriorly; anterior side rather short; posterior side oblong, terminal margin straight.

Hanley. Wood's Index Testaceologicus.

Hab. New Holland.

Species 12. (Fig. *a*, *b*, *c*, Mus. Brit.)

Venerupis cylindracea. *Ven. testâ irregulari, lævigatâ, subcylindricâ, concentricè striatâ, posticè angulatâ, productâ, ad terminum truncatâ.*

The cylindrical Venerupis. Shell irregular, smooth, subcylindrical, concentrically striated, posteriorly angular, produced, truncated at the end.

Deshayes (Petricola). Revue Zoologique.

Petricola californica, Conrad.

Petricola arcuata, Deshayes.

Petricola subglobosa, Sowerby.

Hab. California.

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Sowerby del et lith

Vincent Brooks Day & Son, Lith

VENERUPIS.

PLATE III.

Species 13. (Mus. Brit.)

VENERUPIS OBESA. *Ven. testâ inflatâ, brevi, subquadratâ, pallidâ posticè, intùs et ad umbones violaceâ, radiatim striatâ; latere antico brevissimo; latere postico angulato, margine ventrali convexo.*

THE OBESE VENERUPIS. Shell inflated, short, subquadrate, pale posteriorly, inside and at the umboes violet, radiately striated; anterior side very short; posterior side angular, ventral margin convex.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. —— ?

Described from a specimen in the Cumingian collection.

Species 14. (Fig. *a*, *b*, Mus. Hanley.)

VENERUPIS TUMIDA. *Ven. testâ pallidâ, flavidâ, ventricosâ, concentricè tenuiter costatâ, inter costas tenuissimè striatâ, anticè brevissimâ, angustatâ, medio inflato, posticè expanso, angulato, margine dorsali angulatim elevato.*

THE TUMID VENERUPIS. Shell pale yellowish, ventricose, concentrically finely ribbed, between the ribs very finely striated, anteriorly very short, narrow, inflated in the middle, posteriorly expanded, angular, dorsal margin angularly elevated.

SOWERBY. Thesaurus Conchyliorum. Venerupis, Sp. 27.

Hab. —— ?

A pretty little species described from Mr. Hanley's shell.

Species 15. (Mus. Brit.)

VENERUPIS PULCHERRIMA. *Ven. testâ elongatâ, subcylindricâ, posticè quadratâ, laminis crassiùsculis, lævibus, extantibus, posticè angulatis exfoliatâ; latere antico brevissimo; umbonibus ferè terminalibus; latere postico elongato, marginibus rectiùsculis.*

THE VERY BEAUTIFUL VENERUPIS. Shell elongated, subcylindrical, posteriorly quadrate, exfoliated with rather thick, smooth, outstanding posteriorly angular laminæ; anterior side very short; umboes nearly terminal; posterior side elongated, margins rather straight.

DESHAYES. Proc. Zool. Soc.

Hab. Isl. Samar, Philippines.

Species 16. (Mus. Brit.)

VENERUPIS CHINENSIS. *Ven. testâ oblongo-subquadratâ, depressâ, subinæquivalvi, albâ, lævigatâ, laminis erectis crassiùsculis posticè angulatis, productioribus exfoliatatâ; latere antico brevissimo; latere postico subattenuato; margine dorsali declivi.*

THE CHINESE VENERUPIS. Shell oblong, subquadrate, depressed, rather irregular, white, smooth, exfoliated with erect, rather thick laminæ, posteriorly angular and more produced; anterior side very short; posterior side rather attenuated; dorsal margin sloped.

DESHAYES. Proc. Zool. Soc.

Hab. Flo-Flo, Isl. Panay, Philippines.

Collected by the late Mr. Cuming on rocks at low water.

Species 17. (Mus. Sowerby.)

VENERUPIS DIEMENENSIS. *Ven. testâ oblongo-subquadratâ; ventricosâ, crassâ, radiatim costatâ, intùs violaceâ,*

concentricè crenulatim et striatâ, costis depressis, serratis, margine dorsali rectiùsculo; margine terminali truncato; margine ventrali convexo, intùs crenulato.

THE VAN DIEMEN'S LAND VENERUPIS. Shell oblong-subquadrate, ventricose, thick, radiately ribbed, violet within, concentrically crenulated and striated, ribs depressed, serrated, dorsal margin rather straight; terminal margin truncated; ventral margin convex; crenulated within.

QUOY. Voy. Astr., pl. 84, figs. 25, 26.

Hab. Van Diemen's Land.

Very Tapes-like in form and remarkably solid.

Species 18. (Mus. Brit.)

VENERUPIS CUMINGII. *Ven. testâ ovatâ, subcæruleâ, purpureo nebulatâ, inæquivalvi, subdepressâ, radiatim costatâ; concentricè laminis crenatis, laqueatis exfoliatâ; valvâ dextrâ valvam sinistram superanti, margine foliaceâ.*

CUMING'S VENERUPIS. Shell ovate, bluish, clouded with purple, inequivalve, subdepressed, radiately ribbed; concentrically exfoliated with crenated, fluted laminæ; right valve overlapping the left, with leafy margin.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. —— ?

Described from the Cumingian Cabinet.

Species 19. (Mus. Brit.)

VENERUPIS OBLONGA. *Ven. testâ ovato-oblongâ, pallidè fulvâ, sulcis duplicatis radiatâ, concentricè laminatâ; latere antico brevi, lunulâ distinctâ; latere postico subquadrato, margine postico rectangulari.*

THE OBLONG VENERUPIS. Shell ovate-oblong, pale fulvous, rayed with double grooves; concentrically laminated; anterior side short, lunule distinct; posterior side subquadrate, posterior margin rectangular.

SOWERBY. Proc. Zool. Soc., 1834.

Hab. Pascomayo, Peru.

Species 20. (Mus. Brit.)

VENERUPIS SILIQUA. *Ven. testâ oblongâ, cylindricâ, fulvâ, concentricè laminatâ; laminis anticè tenuibus, posticè angulatis, validioribus; latere antico brevi; latere postico elongato, ad terminum truncato.*

THE POD VENERUPIS. Shell oblong, cylindrical, fulvous, concentrically laminated; laminæ anteriorly thin, posteriorly angular, stronger; anterior side short; posterior side elongated, truncated at the end.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. New Zealand.

Species 21. (Mus. Brit.)

VENERUPIS MONSTROSA. *Ven. testâ ovatâ, inæquivalvi, compressâ, pallidâ, anticè medioque decussatim striatâ, posticè irregulariter concentricè laminatâ; valvæ dextræ laminis valdè exfoliatis et incrassatis, valvam sinistram superanti.*

THE MONSTROUS VENERUPIS. Shell ovate, inæquivalve, compressed, pale, anteriorly and in the middle decussately striated, posteriorly irregularly concentrically laminated; laminæ of the right valve much exfoliated and thickened, overlapping the left valve.

CHEMNITZ (Venus). Conch. VII. figs. 445, 446.

Hab. Isl. Nicobar, Philippines.

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Sowerby del. et lith.

Vincent Brooks Day & Son Imp.

VENERUPIS.

PLATE IV.

Species 22. (Mus. Brit.)

VENERUPIS IRUS. *Ven. testâ pallidè fulvâ, compressâ, oblongo-subquadratâ, radiatim tenuiter sulcatâ, concentricè luminatâ, laminis extantibus, laqueatis posticè latioribus; latere antico brevi, subtùs umbones excavato; umbonibus decumbentibus; medio compresso, margine ventrali subcontracto; latere postico oblongo, subangulato.*

THE IRUS VENERUPIS. Shell pale fulvous, compressed, oblong-subquadrate, radiately finely grooved, concentrically laminated, laminæ extant, fluted, broader posteriorly; anterior side short, excavated under the umboes; umboes decumbent; middle compressed, ventral margin a little contracted; posterior side oblong, rather angular.

LINNÆUS (Donax). Systema Naturæ.

Tellina cornubiensis, Pennant, Brit. Zool.

Cuneus foliatus, Costa.

Hab. Great Britain.

Found in Limestone rocks on the more southern coasts of England, Wales, and Ireland.

Species 23. (Mus. Brit.)

VENERUPIS MACROPHYLLA. *Ven. testâ oblongâ, radiatim striatâ, laminis tenuibus, cancellatis, productis, laqueatis, posticè latioribus concentricè, ornatâ; latere antico declivi; latere postico elongato, ad terminum subrotundo; margine ventrali rectiùsculo, margine dorsali paulò arcuato, declivi.*

THE LARGE LEAF VENERUPIS. Shell oblong, radiately striated, concentrically ornamented with thin, cancellated, produced, fluted laminæ, broader at the posterior side; anterior side sloped; posterior side elongated, rather rounded at the end; ventral margin rather straight, dorsal margin a little arched, sloped.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. Philippines.

A more light and delicate shell than *Venerupis Irus*, with the leafy laminæ fewer and more prominent.

Species 24. (Mus. Brit.)

VENERUPIS MITIS. *Ven. testâ oblongâ, rectangulari, leviter radiatim striatâ, concentricè tenuiter laminatâ; latere antico brevi, declivi; latere postico oblongo, obliquè angulato; margine dorsali recto; margine terminali latè truncato.*

THE QUIET VENERUPIS. Shell oblong, rectangular, lightly radiately striated, concentrically finely laminated; anterior side short, sloped; posterior side oblong, obliquely angular; dorsal margin straight; terminal margin broadly truncated.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. ——?

The habitat of this interesting little shell is unknown.

Species 25. (Mus. Brit.)

VENERUPIS FIMBRIATA. *Ven. testâ subovatâ, radiatim subdistanter sulcatâ; concentricè laminatâ; laminis extantibus, laqueatis, posticè latioribus; latere antico brevi, subrotundo, umbonibus altis; latere postico subangulato; margine dorsali rectiùsculo.*

THE FRINGED VENERUPIS. Shell, subovate; radiately, rather distantly grooved; concentrically laminated; laminæ outstanding, fluted, broader posteriorly; anterior side short, rather rounded, umboes elevated; posterior side rather angular; dorsal margin nearly straight.

SOWERBY. Thesaurus Conchyliorum, Venerupis, No. 12, fig. 24.

Hab. ——?

A shell in the Cumingian collection, locality unknown.

Species 26. (Fig. *a*, *b*, Mus. Sowerby.)

VENERUPIS RUGOSA. *Ven. testâ oblongâ, rectiùsculâ, crassâ, nonunquam ad umbones roseo-purpureâ, interdum intùs posticè fusco-purpureo pictâ, medio anticèque disruptè et angulatim rugosâ, posticè rugis concentricis, crassiùsculis liratâ; latere postico latiùsculo, latè truncato.*

THE RUGOSE VENERUPIS. Shell oblong, rather straight, thick, sometimes purplish-rose at the umboes, sometimes painted inside posteriorly with purple-brown, wrinkled in the middle in a broken and angular manner, posteriorly ridged with concentric, rather thick wrinkles; posterior side rather broad; widely truncated.

DESHAYES. Proc. Zool. Soc.

Hab. Swan River.

The form is similar to that of *Tapes perforans*, but the surface is wrinkled in small angles, excepting at the back, where there are regular ridges.

Species 27. (Mus. Hanley.)

VENERUPIS INTERSTRIATA. *Ven. testâ rhomboideâ, posticè pallidè et minutè lineis rubris reticulatâ; concentricè crebrè laminatâ, inter laminas minutissimè striatâ; latere antico angustiùscolo, brevi, subtùs umbones excavato; latere postico latiori, obliquè angulato, margine dorsali recto; margine terminali latè truncato.*

THE INTERSTRIATED VENERUPIS. Shell rhomboidal, posteriorly reticulated with fine red lines, concentrically closely laminated, very finely striated between the laminæ, anterior side rather narrow, short, excavated beneath the umboes; posterior side broader, obliquely angular, dorsal margin straight; terminal margin broadly truncated.

OWERBY. Thesaurus Conchyliorum, Venerupis, No. 17, fig. 26.

Hab. ——?

Species 28. (Mus. Brit.)

VENERUPIS PAUPERCULA. *Ven. testâ parvâ, brevi, obongo-subquadratâ, concentricè irregulariter rugatâ; rugis sublaminatis, subundatis; latere postico obliquè angulato, margine rectangulato.*

THE PAUPER VENERUPIS. Shell small, short, oblong, rather square, concentrically irregularly wrinkled; wrinkles sublaminated, rather undulated; posterior side obliquely angular, with rectangular margin.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. Mazatlan.

Species 29. (Mus. Brit.)

VENERUPIS PLANICOSTA. *Ven. testâ subquadratâ, distanter concentricè laminis distantibus planulatis liratis; radiatim minutè striatâ; latere antico brevissimo; umbonibus subterminalibus; latere postico subquadrato, margine dorsali declivi; margine ventrali recto.*

THE FLAT-RIBBED VENERUPIS. Shell subquadrate, distantly concentrically ridged with distant flattened, laminæ; radiately minutely striated; anterior side very short; umboes nearly terminal, posterior side rather square, with dorsal margin sloped; ventral margin straight.

DESHAYES. Proc. Zool. Soc., 1853.

Hab. ——?

More rectangular than *Venerupis obesa.*

Species 30. (Mus. Hanley.)

VENERUPIS INTERJECTA. *Ven. testâ oblongo-subquadratâ, posticè roseo angulatim lineatâ, laminis concentricis acutis subdistantibus rugatâ, radiatim minutissimè striatâ; latere postico obliquè angulato, ad terminum expanso, latere dorsali recto, elevato, ad terminum cuneato.*

THE INTERJECTED VENERUPIS. Shell oblong-subquadrate, posteriorly lineated with rose, concentrically wrinkled with sharp, rather distant laminæ, radiately very minutely striated; posterior side obliquely angular, expanded at the end; dorsal margin straight, elevated, cuneate at the end.

DESHAYES. Brit. Mus. Cat.

Hab. New Holland.

VENERUPIS.

	Plate.	Species.
arcuata, Deshayes	II.	12
attenuata, *Sowerby*	II.	7
Californica, Conrad	II.	12
carditoides, *Lamarck*	I.	5
Chinensis, *Deshayes*	III.	16
Cordieri, *Deshayes*	I.	1
cornubiensis, Pennant	IV.	22
crenata, *Lamarck*	I.	3
Cumingii, *Deshayes*	III.	18
cylindracea, *Deshayes*	II.	12
derelicta, *Deshayes*	II.	8
Diemenensis, *Quoy*	III.	17
digona, *Deshayes*	II.	6
exotica, *Hanley*	II.	11
fimbriata, *Sowerby*	IV.	25
foliacea, *Deshayes*	II.	10
foliatus, Costa	IV.	22
insignis, *Deshayes*	I.	2
interjecta, *Deshayes*	IV.	30
interstriata, *Sowerby*	IV.	27
irus, *Linnæus*	IV.	22
macrophylla, *Deshayes*	IV.	23
mirabilis, *Deshayes*	I.	4
mitis, *Deshayes*	IV.	24
monstrosa, *Chemnitz*	III.	21
obesa, *Deshayes*	III.	13
oblonga, *Sowerby*	III.	19
paupercula, *Deshayes*	IV.	28
planicosta, *Deshayes*	IV.	29
pulcherrima, *Deshayes*	III.	15
rugosa, *Deshayes*	IV.	26
siliqua, *Deshayes*	III.	20
subglobosa, Sowerby	II.	12
texta, *Deshayes*	II.	9
tumida, *Sowerby*	III.	14

MONOGRAPH

OF THE GENUS

PANDORA.

"Thousands of things do Thee employ
In ruling all
This spacious globe."—*Trench.*

1

2a

2b

3a

4

5

3b

6

7

8

Sowerby del et lith

Vincent, Brooks Day & Son, Imp.

PANDORA.

PLATE I.

Genus PANDORA, *Solander*.

Testa inæquivalvis, inæquilateralis, posticè producta, rostrata, tenuis, compressa, alba, intùs margaritacea. Impressiones musculares duæ, rotundæ. Valva dextra complanata, unidentata, cartilagine inter costas laminatas radiatas foveato, margine postico-dorsali reflexo. Valva sinistra plusminusve convexa, ad marginem ventralem plerumque valvam dextram superans.

Shell inequivalve, inequilateral, posteriorly produced, beaked, thin, compressed, white, pearly within. Muscular impressions two, rounded. Right valve flat, single-toothed, cartilage pitted between two radiating laminated ribs, posterior dorsal margin bent backwards. Left valve more or less convex, generally overlapping the right valve at the ventral margin.

The subgenus Kennerlia is founded by Mr. Carpenter upon the species *Pandora glacialis* and another or two, which are said to have an ossicle. This ossicle seems to me to be only a thickening of the sides of the ligament pit; in which case, the generic description of Pandora by Adams as having "no free ossicle" would be correct of all the species including the above mentioned. It is quite possible that an examination of more specimens might modify my view of this matter.

The Pandoræ burrow in sand and mud at considerable, but varying depths. Britain has two species; other species are found northwards at Spitzbergen, centrally at Panama, and southwards at New Zealand. The number of species has not very largely increased since the publication of the late Mr. G. B. Sowerby's monograph in the Species Conchyliorum; that is to say, it has not done so in proportion to many other genera during that period.

Species 1. (Mus. Brit.)

PANDORA CRISTATA. *Pan. testâ altâ, brevi, dolabriformi compressâ; margine ventrali convexissimâ; latere antico brevi, margine dorsali elevato; laminis cuneatis cristato; latere postico ad marginem dorsalem leviter arcuato, in rostrum productum elevatum angustum terminanti, costâ dorsali angustâ, tumidâ.*

THE CRESTED PANDORA. Shell elevated, short, hatchet-shaped, compressed; ventral margin very convex; anterior side short, dorsal margin elevated, crested with cuneate laminæ; posterior side slightly arched at the dorsal margin; terminating in a produced, raised, narrow beak; dorsal rib narrow, tumid.

CARPENTER ——? Mus. Brit. MS.

Hab. ——?

Distinguished by a jagged crest on the antero-dorsal margin.

Species 2. (Fig. *a*, *b*, Mus. Sowerby.)

PANDORA INÆQUIVALVIS. *Pan. testâ oblongâ, intùs extùsque medio et versùs umbones flavidâ; latere antico brevi, subrotundo, versùs medium subflexuoso; latere postico producto, margine dorsali paulò arcuatim depresso; rostro obtuso, truncato; costâ dorsali duplicatâ, depressâ; valvâ sinistrâ profundâ, flexuosâ, ad marginem ventralem valvam dextram conspicuè superanti.*

THE INEQUIVALVE PANDORA. Shell oblong, yellow inside and outside in the middle and towards the umboes; anterior side short, rather rounded, rather flexuous towards the middle; posterior side produced, dorsal margin a little depressed with a curve; beak obtuse, truncated; dorsal rib duplicate, depressed; left valve deep, flexuous, conspicuously overlapping the right valve at the ventral margin.

LINNÆUS (Tellina). Syst. Nat.

Pandora rostrata, Lamarck.

Hab. Great Britain.

Species 3. (Fig. *a*, *b*, Mus. Brit.)

PANDORA WARDIANA. *Pan. testâ altâ, semiorbiculari, subrugosâ, pallidissimè subpurpureâ; latere antico brevi, angusto, ad marginem ventralem sinu flexuoso emarginato; latere postico acuminato expanso, margine dorsali flexuosim declivi; valvâ dextrâ complanatâ, sulcis incisis rubris, linearibus, divaricatim radiatâ; valvâ sinistrâ valdè convexâ, anticè sulcâ flexuosâ, leviter depressâ radiatâ.*

WARD'S PANDORA. Shell elevated, semiorbicular, rather rough, very pale purplish; anterior side short, narrow, emarginated at the ventral margin with a flexuous sinus; posterior side acuminated, expanded, with dorsal margin flexuously sloped; right valve flattened, diversely rayed with incise,

red, linear grooves; left valve very convex, rayed anteriorly with a flexuous, lightly depressed groove.

CARPENTER. Proc. Zool. Soc. 1850.

Hab. California.

In our common British species, the deep valve gives very slight indications of a sort of flexuous depression like that which is fully developed in the present species.

Species 4. (Mus. Brit.)

PANDORA ELONGATA. *Pan. testâ tenuissimâ, compressâ, valdè arcuatâ; latere antico brevissimo, angusto, obliquè elevato; latere postico lato, margine ventrali convexissimo; margine dorsali, crescentiformi; rostro angusto, producto; costâ dorsali tumidâ; valvâ sinistrâ planiusculâ.*

THE ELONGATED PANDORA. Shell very thin, compressed, much arched; anterior side very short, narrow, obliquely elevated; posterior side broad, ventral margin very convex; dorsal margin crescent-shaped; beak narrow, produced; dorsal rib tumid; left valve rather flat.

CARPENTER —— ? MS. Mus. Brit.

Hab. —— ?

The peculiarity of this shell is the oblique narrowing of the anterior side and deepening of the ventral margin on the posterior.

Species 5. (Mus. Brit.)

PANDORA OBLONGA. *Pan. testâ tenui, attenuatâ, rectiusculâ, latero antico angustiusculo; latere postico elongato, versus rostrum attenuato; rostro truncato; valvâ sinistrâ moderatè convexâ; dente in valvâ planulatâ ligamentoque minimis.*

THE OBLONG PANDORA. Shell thin, attenuated, rather straight, anterior side rather narrow; posterior side elongated, attenuated towards the beak; beak truncated; left valve moderately convex; tooth in lower valve and ligament very small.

SOWERBY. Species Conchyliorum, Pt. I. Pandora Sp. f. 10.

Hab. River Gambroon.

This species differs from *Pandora inæquivalvis* in its length and narrowness. The tooth and ligament are also very small.

Species 6. (Mus. Brit.)

PANDORA TRILINEATA. *Pan. testâ compressâ, altiusculâ distanter rugatâ, crassiusculâ; margine dorsali paulò depresso-arcuato, rostro obtusissimo, truncato; costâ dorsali acuatâ, subnodosâ; valvâ dextrâ ad marginem ventralem valvam sinistram superanti; valvâ sinistrâ planiusculâ.*

THE TRILINEAR PANDORA. Shell compressed, rather elevated, distantly wrinkled, rather thick; dorsal margin a little depressed in a curve, beak very obtuse, truncated; dorsal rib sharp, rather nodose; right valve overlapping left valve at the ventral margin; left valve rather flat.

SAY. Adams, Proc. Zool.

Hab. Ceylon.

More solid and pearly than either of the British species.

Species 7. (Mus. Sowerby.)

PANDORA OBTUSA. *Pan. testâ ovatâ, rectiusculâ, tenui, latere antico brevi, angulato, supernè cuneato; latere postico expanso, truncato, margine dorsali vix depresso; costâ dorsali inconspicuâ; valvâ sinistrâ convexâ, versus umbones rugatâ.*

THE OBTUSE PANDORA. Shell ovate, rather straight, thin, anterior side short, narrow, cuneate above; posterior side expanded, truncated, dorsal margin very little depressed; dorsal rib inconspicuous; left valve convex, wrinkled towards the umboes.

LEACH. MS. Brit. Mus.

Mytilus pinna, Pennant.

Anatina truncata, Turton.

Hab. South-west coast of England.

Species 8. (Mus. Brit.)

PANDORA ARCUATA. *Pan. testâ altiusculâ, dolabriformi, latere antico subproducto, margine rotundo; latere postico eleganter arcuato; rostro producto, elevato; valvâ sinistrâ intus medio et versus umbones costellis margaritaceis radiatâ.*

THE ARCHED PANDORA. Shell rather elevated, hatchet-shaped, anterior side rather produced; margin rounded; posterior side elegantly arched, beak produced, elevated; left valve rayed inside, in the middle and near the umboes with pearly riblets.

SOWERBY. Species Conchyliorum, Med. Pl. f. 27, 28.

Hab. —— ?

There is a peculiar radiation of pearly striæ in the interior of this shell, which is rather distinctly beaked and gracefully curved.

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11ᵇ

14ª

14ᵇ

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Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

PANDORA.

PLATE II.

Species 9. (Mus. Erit.)

PANDORA RADIATA. *Pan. testâ semirotundâ, opacâ; margine ventrali convexo; latere antico brevi, margine dorsali subtùs umbones excavato, ad terminum cuneato; latere postico versùs rostrum subattenuato; rostro brevi, truncato; valvâ dextrâ planulatâ, radiatim sulcatâ, sulcis rubris, linearibus; valvâ sinistrâ convexâ; costâ dorsali validâ.*

THE RAYED PANDORA. Shell half-round, opaque; ventral margin convex; anterior side short, dorsal margin excavated beneath the umboes, cuneated at the end; posterior side a little attenuated towards the beak; beak short, truncated; right valve flat radiately grooved, grooves red, linear; left valve convex, dorsal rib strong.

SOWERBY. Proc. Zool. Soc., 1835.

Hab. —— ?

Species 10. (Fig. *a*, *b*, Mus. Brit.)

PANDORA FILOSA. *Pan. testâ semiovatâ, opacâ, margine ventrali medio convexo, utrinquè attenuato, acuminato; margine dorsali recto; latere antico ad marginem ventralem sinuosim contracto; latere postico antè rostrum attenuato, contracto; rostro producto, ad terninum truncato; valvâ sinistrâ moderatè convexâ.*

THE THREADED PANDORA. Shell semiovate, opaque, ventral margin convex in the middle, attenuated and acuminated at each end; dorsal margin straight; anterior side sinuously contracted at the ventral margin; posterior side attenuated and contracted in front of the beak; beak produced, truncated at the end; left valve moderately convex.

CARPENTER. Proc. Zool. Soc.

Hab. Puget's Sound.

Species 11. (Fig. *a*, *b*, Mus. Brit.)

PANDORA CUMINGII. *Pan. testâ compressâ, obliquâ, arcuatâ; latere antico angusto, elevato; latere postico lato, producto, rostrato, margine dorsali profundè arcuato, ad terminum elevato, margine ventrali expanso, antè rostrum contracto.*

CUMING'S PANDORA. Shell compressed, oblique, arched; anterior side narrow, raised; posterior side produced, beaked, dorsal margin deeply arched, raised at the end, ventral margin expanded, contracted in front of the beak.

HANLEY. Proc. Zool. Soc., 1861.

Hab. Philippines.

An extraordinarily formed shell belonging to the same group as *P. Ceylanica*, &c.

Species 12. (Mus. Brit.)

PANDORA BREVIFRONS. *Pan. testâ tenuissimâ, elongatâ, rectâ, angustâ; latere antico brevi, subacuminato, margine dorsali elevato; latere postico producto, leviter rostrato, margine dorsali vix arcuato; valvâ sinistrâ convexâ, valvam dextram ad marginem ventralem superanti.*

THE SHORT-FRONTED PANDORA. Shell very thin, elongated, rather straight, narrow; anterior side short, rather acuminated, with dorsal margin raised; posterior side produced, slightly beaked, dorsal margin very little arched; left valve convex, overlapping the right valve at the ventral margin.

SOWERBY. Proc. Zool. Soc., 1835.

Hab. —— ?

Longer, straighter, and thinner than *P. oblonga*.

Species 13. (Mus. Brit.)

PANDORA PUNCTATA. *Pan. testâ expansâ, latâ, arcuatâ; latere antico brevi, margine suprà medium subcuneato, intùs impresso-punctatâ dente unico, a margine distanti, radiato; latere postico producto, expanso subrostrato, ad terminum elevato, acuminato; margine dorsali arcuatim depresso; valvâ sinistrâ ad marginem ventralem expanso.*

THE PUNCTURED PANDORA. Shell expanded, broad, arched; anterior side short, margin with a slight corner above the middle, inside with impressed-punctures rayed with a single tooth distant from the margin; posterior side produced, expanded, slightly beaked, raised at the end, acuminated; dorsal margin depressed in a curve; left valve expanded at the ventral margin.

CONRAD. Proc. Zool. Soc., 1855.

Hab. —— ?

Species 14. (Fig. *a*, *b*, Mus. Brit.)

PANDORA GLACIALIS. *Pan. testâ latâ, breviùsculâ, ventricosâ, crassiùculâ, concentricè rugatâ; latere antico vix cuneato radiatim sulco inconspicuo impresso, ad marginem sinuato; latere postico latiori, brevissimè rostrato, obtuso, propè marginem costis duabus subnoduliferis radiato, ad marginem ventralem convexo; valvâ sinistrâ profundâ, edentulâ; valvâ dextrâ unidentatâ; cartilagine in foveam instructâ; foveâ ad laterâ laminâ calcareâ incrassatâ.*

THE GLACIAL PANDORA. Shell broad, rather short, ventricose, rather thick, wrinkled concentrically; anterior side with a very slight corner, impressed with a slightly radiating groove, sinuated at the margin; posterior side broader, very shortly beaked, obtuse, rayed near the margin with two rather nodulous ribs, convex at the ventral margin; left valve deep, without teeth; right valve with one tooth; cartilage inserted in a pit; thickened at the sides with a calcareous layer.

LEACH. B. M.

Hab. Spitzbergen.

I can scarcely regard this slight thickening at the sides of the cartilage pit and cartilage as a separate ossicle.

Species 15. (Mus. Brit.)

PANDORA BRAZILIENSIS. *Pan. testâ brevi, latâ, obtusâ; latere antico brevissimo; latere postico latè truncato; valvâ sinistrâ ventricosâ.*

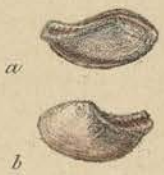
THE BRAZILIAN PANDORA. Shell short, broad, obtuse; anterior side very short; posterior side broadly truncated; left valve ventricose.

GOULD —— ? MS. Brit. Mus.

Hab. Brazil.

I am unacquainted with the upper valve of this shell, which may possibly prove to have been described from a defective specimen.

17



a

b

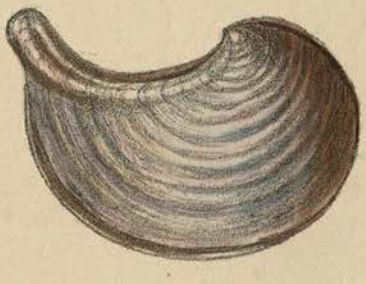
16

18

19 a

20 a

20 b



19 b

21 a

21 b

22

23

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

PANDORA.

PLATE III.

Species 16. (Fig. *a*, *b*, Mus. Sowerby.)

PANDORA FLEXUOSA. *Pan. testâ parvâ, breviùsculâ, tortuosâ; latere antico subacuminato; latere postico attenuato, rostrato, margine dorsali declivi, arcuato, ad terminum elevato, margine terminali truncato; valvâ sinistrâ profundâ, flexuosâ; antè rostrum contractâ; costis duabus rostralibus validis.*

THE FLEXUOUS PANDORA. Shell small, rather short, tortuous; anterior side slightly acuminated; posterior side attenuated, beaked, dorsal margin sloped, arched, raised at the end, terminal margin truncated; left valve deep, flexuous, contracted in front of the beak; two strong rostral ribs.

SOWERBY. Genera of Shells, No. 2.

Hab. Arabian Gulf.

This beautiful little species is seldom met with.

Species 17. (Mus. Sowerby.)

PANDORA DELICATULA. *Pan. testâ parvâ, tenuissimâ, depressâ, medio concentricè leviter rugatâ, breviùsculâ; anticè angustâ, posticè ad marginem ventralem expansâ; antè rostrum leviter contractâ; rostro lato, depresso, latè truncato, margine dorsali recto.*

THE DELICATE PANDORA. Shell small, very thin, depressed, slightly concentrically wrinkled in the middle, rather short; anteriorly narrow, posteriorly expanded at the ventral margin; a little contracted in front of the beak; beak broad, depressed, broadly truncated, dorsal margin straight.

A. ADAMS. Proc. Zool. Soc.

Hab. Japan.

The specimens from which the figure is taken are young, and I have seen no others.

Species 18. (Mus. ——? copied.)

PANDORA NASUTA. *Pan. testâ subovatâ, arcuatâ, medio subexpansâ; latere antico subcuneato, margine dorsali subalato, declivi; latere postico versùs terminum attenuato, conspicuè rostrato; margine dorsali arcuato, margine ventrali antè rostrum contracto, medio convexo.*

THE NASUTE PANDORA. Shell subovate, arched, slightly expanded in the middle; anterior side a little cuneate, with dorsal margin slightly alate, sloped; posterior side attenuated towards the end, conspicuously beaked; dorsal margin arched, ventral margin a little contracted in front of the beak, convex in the middle.

SOWERBY. Species Conchyliorum, figs. 18, 19.

Hab. ——?

The shell is described in the above work as one of extreme rarity, and as the specimen in the British Museum to which the name is attached does not well agree with the description and original figure, I have thought it best to copy the latter.

Species 19. (Fig. *a*, *b*, Mus. Brit.)

PANDORA CEYLANICA. *Pan. testâ altâ, compressâ, dolabriformi, arcuatâ, solidiùsculâ, subæquilaterali, concentricè undulatâ; intùs laminis cardinalibus, unâ fornicatâ, radiatâ; latere antico acclivi, margine dorsali subalato; latere postico ad marginem ventralem producto; antè rostrum contracto, margine dorsali profundissimè arcuato; rostro angusto, producto, costâ duplicatâ rostrali validâ, angustâ; valvis subæqualiter planulatis.*

THE CEYLON PANDORA. Shell elevated, compressed, hatchet-shaped, arched, rather solid, nearly equilateral, concentrically undulated, rayed within with cardinal layers, one vaulted; anterior side sloped upwards, dorsal margin slightly alate; posterior side produced at the ventral margin; contracted in front of the beak, dorsal margin very deeply arched; beak narrow, produced, double rostral rib strong, narrow; valves almost equally flat.

SOWERBY. Proc. Zool. Soc., 1835.

Hab. Ceylon.

Species 20. (Fig. *a*, *b*, Mus. Brit.)

PANDORA CLAVICULATA. *Pan. testâ altâ, dolabriformi, arcuatâ, solidiùsculâ, concentricè validè undulatâ; latere antico elevato, margine dorsali subalato; latere postico ad marginem ventralem rotundatim expanso, versùs terminum sursùm acclivi; margine dorsali arcuato, rostro terminali acclivi; costis rostralibus crassis, ad terminum elevatis; valvâ sinistrâ posticè moderatè convexâ, flexuosâ.*

THE KEY-SHAPED PANDORA. Shell elevated, hatchet-shaped, rather solid, concentrically strongly undulated; anterior side raised, dorsal margin slightly alate; posterior side roundly expanded at the ventral margin; sloped up towards the end; dorsal margin arched, terminal rostrum sloped upwards; rostral ribs thick, raised at the end; left valve posteriorly moderately convex, flexuous.

CARPENTER. Proc. Zool. Soc., 1855.

Hab. —— ?

Resembling *Pandora Ceylanica* in form, but the under valve is more convex, and the curve of the dorsal margin less strong.

Species 21. (Fig. *a*, *b*, Mus. Brit.)

PANDORA DEPRESSA. *Pan. testâ altâ, solidâ, vividè margaritaceâ, compressâ, breviùsculâ; latere antico brevissimo; margine dorsali declivi; latere postico obtuso, vix rostrato; margine dorsali leviter arcuato; valvâ sinistrâ parvâ, convexâ.*

THE DEPRESSED PANDORA. Shell elevated, solid, brightly pearly, compressed, rather short; anterior side very short; dorsal margin sloped; posterior side obtuse, scarcely beaked; dorsal margin slightly curved; left valve a little convex.

SOWERBY. Species Conchyliorum, Figs. 11, 12.

Pandora tabacea, Gronovius?

Species 22. (Mus. Brit.)

PANDORA DISCORS. *Pan. testâ brevi, altâ, compressâ; latere antico cuneato, subproducto; latere postico breviùsculo; valvâ dextrâ acutè rostratâ, costis validis duabus propè marginem radiatâ; valvâ sinistrâ multo ad marginem ventralem, valvam dextram superanti.*

THE DISCORDANT PANDORA. Shell short, elevated, compressed; anterior side cuneate, a little produced; posterior side rather short; right valve sharply beaked, rayed near the margin with two strong ribs; left valve much overlapping the right valve at the ventral margin.

SOWERBY. Proc. Zool. Soc., 1835.

Hab. —— ?

The ventral extension of the deeper valve, from which the name is probably derived, may possibly be a mere imperfection in the specimens described from.

Species 23. (Mus. Brit.)

PANDORA UNGUICULUS. *Pan. testâ parvâ, arcuatâ, ventricosâ, latere antico subacuminato; latere postico subattenuato, rostro producto, acuminato; costis marginalibus duabus, angustis, approximatis; margine dorsali leviter arcuato; valvâ sinistrâ convexâ, subflexuosâ.*

THE TALON PANDORA. Shell small, curved, ventricose, anterior side rather acuminated; posterior side rather attenuated, beak produced, acuminated; marginal ribs two, narrow, approximate; dorsal margin slightly arched; left valve convex, rather flexuous.

SOWERBY. Species Conchyliorum, figs. 16, 17.

Hab. —— ?

The posterior side is attenuated gradually towards the beak in this species; whereas in *Pandora flexuosa* it is suddenly contracted.

PANDORA.

	Plate.	Species.
arcuata, *Sowerby*	I.	8
Braziliensis, *Gould*	II.	15
brevifrons, *Sowerby*	II.	12
Ceylanica, *Sowerby*	III.	19
claviculata, *Carpenter*	III.	20
cristata, *Carpenter*	I.	1
Cumingii, *Hanley*	II.	11
delicatula, *A. Adams*	III.	17
depressa, *Sowerby*	III.	21
discors, *Sowerby*	III.	22
elongata, *Carpenter*	I.	4
filosa, *Carpenter*	II.	10
flexuosa, *Sowerby*	III.	16
glacialis, *Leach*	II.	14
inæquivalvis, *Linnæus*	I.	2
nasuta, *Sowerby*	III.	18
oblonga, *Sowerby*	I.	5
obtusa, *Leach*	I.	7
pinna, Pennant	I.	7
punctata, *Conrad*	II.	13
radiata, *Sowerby*	II.	9
rostrata, Lamarck	I.	2
trilineata, *Say*	I.	6
truncata, Turton	I.	7
unguiculus, *Sowerby*	III.	23
Wardiana, *Carpenter*	I.	3

MONOGRAPH

OF THE GENUS

TRICHOTROPIS.

"Thus the men
Whom Nature's works can charm, with God himself
Hold converse."—*Akenside.*

1a

1b

1c

2

3

4

5b

5a

Sowerby del et lith.

Vincent Brooks Day & Son, Imp.

TRICHOTROPIS.

PLATE I.

Genus TRICHOTROPIS, *Broderip and Sowerby.*

Testa spiralis, carinata, umbilicata, epidermide corneo induta; spiræ anfractibus scalatis; aperturâ magnâ, anticè acuminatâ canaliferâ. Operculum corneum, nonspiralè, nucleo terminali.

Shell spiral, keeled, umbilicated, covered with a horny epidermis; whorls of the spire in steps; aperture large, acuminated anteriorly, with a canal. Operculum horny, not spiral, with terminal nucleus.

Three or four species out of the thirteen are from Japan, &c., the others are from the northern latitudes of Europe and America. The species of *Admete* are distinguished from those of *Trichotropis*, not only by the lighter texture, and usually more ovate form of the shell, but by the absence of an umbilicus.

Species 1. (Fig. *a*, *b*, *c*, Brit. Mus.)

TRICHOTROPIS BOREALIS. *Tri. testâ subfusiformi, latè umbilicatâ, quinque-carinatâ, epidermide crasso, flamidi fusco, ad carinas hirsuto indutâ, intùs roseâ; spirâ elevatâ; anfractibus paucis, angulatis; aperturâ latâ, columellâ obliquâ, labio externo tenui, angulato.*

THE BOREAL TRICHOTROPIS. Shell subfusiform, broadly umbilicated, five-keeled, covered with a thick yellow-brown epidermis, with hair at the keels, pink within; spire elevated; whorls few, angular; aperture broad, columella oblique, outer lip thin, angular.

BRODERIP AND SOWERBY. Zool. Journ. iv. p. 375.

Trichotropis Atlantica. Beck.

Trichotropis umbilicata. Macgillivray.

Trichotropis acuminata. Jeffreys. (Fig. 1, *a*.)

Hab. Behring Straits, Greenland, North Britain.

The synonyms above quoted appear to be only conditions and states of the same species. The second is represented by our figure 1 *a*. The third is figured in Thorpe's British Marine Conchology as having all the appearance of an unformed shell.

Species 2. (Mus. Sowerby.)

TRICHOTROPIS BICARINATA. *Tri. testâ angulato-subglobosâ; anfractibus angulatis, paucis, ultimo maximo, medio carinis duabus ciliatis, distantibus cinctis; umbilico lato, margine ciliato; aperturâ maximâ, subquadratâ, columellâ latâ, infrà planatâ, expansâ. Epidermide flavidè fuscâ.*

THE TWO-KEELED TRICHOTROPIS. Shell angular-subglobose; whorls angular, few; last very large, encircled with two ciliated, distant keels; umbilicus broad, with ciliated margin; aperture very large, rather square. Epidermis yellowish-brown.

BRODERIP AND SOWERBY. Zool. Journ., iv.

Hab. Japan.

Species 3. (Mus. Brit.)

TRICHOTROPIS CANCELLATA. *Tri. testâ pyramidatâ; spirâ elevatâ; anfractibus subrotundis, ultimo ventricoso, costellis seto crenulatis, ciliatis cinctis; umbilico parvo; columellâ tenui, arcuatâ; aperturâ rotundâ, anticè acutâ.*

THE CANCELLATED TRICHOTROPIS. Shell pyramidal; spire elevated; whorls rather rounded, last whorl ventricose, encircled with eight crenulated, ciliated ribs; umbilicus small; columella thin, arched; aperture rounded, sharp in front.

HINDS. Proc. Zool. Soc., 1843.

Hab. Sitka, North America.

Species 4. (Mus. Brit.)

TRICHOTROPIS KUZERI. *Tri. testâ subfusiformi, costis distinctis, subdistantibus cinctâ, epidermide stramineo-subviridi indutâ; spirâ conicâ, anfractibus paucis; umbilico magno; aperturâ magnâ, subovatâ, antice posticèque acuminatâ.*

KUZER'S TRICHOTROPIS. Shell subfusiform, encircled with distinct rather distant ribs, covered with a greenish straw-coloured epidermis; spire conical, with few whorls; umbilicus large; aperture large, subovate, anteriorly and posteriorly acuminated.

PHILIPPI. Menke Zeitschrift, 1848.

Trichotropis Dolium. Petit.

Trichotropis ciliata. Kuzer.

Hab. Spitzbergen.

Species 5. (Mus. Brit.)

TRICHOTROPIS INSIGNIS. *Tri. testâ crassâ, subglobosâ, epidermide pallidè fuscâ indutâ, costellis undulatim crenulatis cinctâ; aperturâ subquadratâ, margine crenulato; umbilico parvo.*

THE WONDERFUL TRICHOTROPIS. Shell thick, rather globose, covered with a pale brown epidermis, encircled with undulating crenulated ribs; aperture rather square, with crenulated margin; umbilicus small.

MIDDENDORF. Malac. Ross., p. 107, t. 10, f. 7, 8, 9.

Hab. Behring's Straits.

This species is extremely different from all the rest.

6

7a

7b

8

9a

9b

10

11

12

13

TRICHOTROPIS.

PLATE II.

Species 6. (Mus. Brit.)

TRICHOTROPIS FLAVIDULA. *Tri. testâ pyramidatâ, angustâ, tenui, flavidâ; spirâ elevatâ, acuminatâ, anfractibus angulatis, costis suprà suturam duabus, cinctis, ultimo quadricostato, inter costas cancellato; umbilico angusto; aperturâ parvâ, subtrigonâ.*

THE YELLOWISH TRICHOTROPIS. Shell pyramidal, narrow, thin, yellowish; spire elevated, acuminated, whorls angular, encircled with two ribs above the suture; the last four-ribbed, cancellated between the ribs; umbilicus narrow; aperture small, subtrigonal.

HINDS. Voyage of the *Sulphur*.

ADAMS.

Hab. Sitka, North America.

Species 7. (Fig. *a*, *b*, Mus. Brit.)

TRICHOTROPIS CEDO-NULLI. *Tri. testâ subpyramidatâ, rufescenti, sulcis concentricis et costis moniliformibus spiralibus cancellatâ; spirâ elevatâ; aperturâ subrotundâ; columellâ subtruncatâ, retrorsâ; labio externo anticè sinuatim producto.*

THE NONPAREIL TRICHOTROPIS. Shell somewhat pyramidal, rather reddish, cancellated with concentric grooves and beaded spiral ribs; spire elevated; aperture rather rounded; columella rather truncated, turned backwards; outer lip sinuously produced in front.

A. ADAMS. Proc. Zool. Soc.

Hab. Japan.

The beauty of this species consists in its cancellated and beaded sculpture.

Species 8. (Mus. Brit.)

TRICHOTROPIS UNICARINATA. *Tri. testâ lævigatâ, ovato-subfusiformi, epidermide tenui, flavidâ indutâ, spirâ elevatâ; anfractibus angulatis, ad angulum supernè unicarinatis; umbilico lato; aperturâ obliquè subquadratâ, ad terminum anticum obliquè acuminato; labio externo ad medium arcuato, suprà infràque contracto.*

THE ONE-KEELED TRICHOTROPIS. Shell smooth, oval-subfusiform, covered with a thin, yellowish epidermis; spire elevated; whorls angular, with a single keel at the angle; umbilicus broad; aperture obliquely acuminated; outer lip arched at the middle, contracted above and below.

BRODERIP and SOWERBY. Zoological Journal, iv. p. 376.

Hab. Japan.

Species 9. (Fig. *a*, *b*, Mus. Brit.)

TRICHOTROPIS QUADRICARINATA. *Tri. testâ pyramidatâ, acuminatâ, stramineâ, epidermide tenui, pallidè fuscâ indutâ; spirâ elevatâ, anfractibus angulatis, suprà suturam bicarinatis; ultimo ventricoso, medio bicarinato; umbilico parvo; aperturâ subquadratâ, anticè acuminatâ; columellâ tortuâ.*

THE SQUARE-KEELED TRICHOTROPIS. Shell pyramidal, acuminated, straw-coloured, covered with a thin, pale brown epidermis; spire elevated, whorls angular with two keels above the suture; the last ventricose, two-keeled in the middle; umbilicus small; aperture rather square, acuminated anteriorly; columella tortuous.

A. ADAMS. MS.

Hab. Japan.

The whorls have straight sides between the two keels.

Species 10. (Mus. Brit.)

TRICHOTROPIS CLATHRATA. *Tri. testâ fusiformi, epidermide tenui, pallidâ indutâ, costis, spiralibus submoniliformibus, et costellis interstitialibus regularibus concentricis cancellatâ; spirâ acuminatâ, anfractibus supernè angulatis, carinatis; aperturâ subtrigonâ, anticè acuminatâ; umbilico angusto.*

THE LATTICED TRICHOTROPIS. Shell fusiform, covered with a thin, pale epidermis, cancellated with slightly beaded spiral ribs, and interstitial regular small concentric ribs; spire acuminated, whorls angular, carinated above; aperture subtrigonal, anteriorly acuminated; umbilicus narrow.

A. ADAMS. MS.

Hab. New Zealand.

Species 11. (Mus. Brit.)

TRICHOTROPIS INERMIS. *Tri. testâ subfusiformi, epidermide stramineo indutâ, costis spiralibus submoniliformibus, rotundis, crassiùsculis crebris et interstitiis angustis striatis sculptâ; anfractibus angulatis, suprà suturam bicostatis; umbilico mediocri; aperturâ subovatâ, anticè acuminatâ.*

THE UNARMED TRICHOTROPIS. Shell somewhat fusiform, covered with a straw-coloured epidermis, sculptured with slightly beaded, rounded, rather thick, close, spiral ribs, and narrow, striated interstices; whorls angular, two-ribbed above the suture; umbilicus middle-sized; aperture rather ovate, anteriorly acuminated.

HINDS. Voyage of the *Sulphur*, vol. ii., figs. 13, 14.

Hab. N.W. America.

The spiral ribs in this species are rounded and near together.

Species 12. (Mus. Brit.)

TRICHOTROPIS CONICA. *Tri. testâ pyramidatâ, stramineâ, vix umbilicatâ; spirâ conicâ, elevatâ; anfractibus tricarinatis, lateribus declivibus; columellâ angustâ, tortuâ; aperturâ subquadratâ; anticè planatâ.*

THE CONICAL TRICHOTROPIS. Shell pyramidal, straw-coloured, scarcely umbilicated; spire conical, elevated; whorls three-keeled with sloped sides; columella narrow, tortuous; aperture rather square, flattened anteriorly.

MÜLLER.

Hab. Greenland.

Species 13. (Mus. Brit.)

TRICHOTROPIS COSTELLATA. *Tri. testâ fusiformi, subturbinatâ, tenui, costellis tribus superioribus majoribus, tribus quatuor inferioribus hirsutis, cinctâ, angustè umbilicatâ; aperturâ subtrigonâ, anticè acuminatâ.*

THE SMALL-RIBBED TRICHOTROPIS. Shell fusiform, subturbinate, thin, encircled with three upper, larger, and four lower, smaller, hairy ribs; narrowly umbilicated; aperture subtrigonal, anteriorly acuminated.

COUTHOY. Boston Journal.

Hab. N. America.

In *Trichotropis Borealis* the ribs are thick and equal. In this species, otherwise much resembling it, the three upper ribs are thin, and the four lower ones still thinner. The entire shell is also thinner, and the umbilicus narrow.

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